[Guide to the SK6 Choroti File]

[This file is based on two sources. Both are by professional ethnographers, though the work was done at a relatively early period. 1: Rosen, is a general ethnography of the Choroti, covering most aspects of their culture. 2: Nordenskiold is primarily devoted to material culture with emphasis on distributional evidence. Much important material on the Choroti is contained in a work by Karsten, processed for the Mataco file. The pertinent sections of Karsten's work have been sub-headed for the Choroti file. Many specific aspects of Choroti culture are inadequately covered in the available literature, though the file is useful for many purposes.]

Processed in 1961

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

136 very abundant in fish, and in their waters, as in most of the larger lagoons, alligators (Caiman sclerops) are present (fig. 15).

101 El Gran Chaco was in beginning of this century the country of the free Indians. Of the many tribes that inhabit this vast region, I have come into contact with Choroti, Chiriguano, Toba, Mataco and Tapiete, but it was only from among the first-mentioned that I had an opportunity to obtain any extensive collection.

[137]

Fig. 3. Dry soil forest region. Gran Chaco. Bolivia. Photo. Rob. Fries.

101 114 In the literature dealing with the Chaco, there was, prior to our expedition, not to be found much information concerning the Choroti. Their tribal name, in the form of »xolota», was, however, known already in the 18th century, when it was, probably for the first time, mentioned by Pedro Lozano, who, in a work published in 1733, enumerates a long string of names of tribes inhabiting the Chaco.[1] In his work, »Explorations dans l'Amerique du Sud», Thouar only gives a few, stray, items of information about the Choroti, he having come across that tribe on the Pilcomayo. The Choroti were, therefore, at the time of our expedition a

[1] Lozano (1).

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

101 tribe practically unknown from an ethnographical point of view, a circum-
114 stance which accounts for the interest paid to the incomplete description of the material culture of the Choroti tribe that I put before the 14th International Congress held at Stuttgart in 1904.[1] My lecture, which was also available in print, was in extenso incorporated with the report of the proceedings of the Congress,[2] and later appeared, slightly abridged, in »Anthropologie Bolivienne».[3] For reasons I have stated in the foreword of my book, En förgången värld,[4] my first description of the Choroti must nevertheless be looked upon as a work done in some haste.

114 Since the Swedish expedition of 1901—1902, various explorers have made valuable studies of the Choroti, and considerable increased our knowledge as to the physical properties, mode of life, and customs, of this tribe. The eminent anthropologist, Robert Lehmann-Nitsche, has carried out extensive anthropological measurements of a large number of individuals of this tribe,[5] and has also studied the language of these Indians.[6] Erland Nordenskiöld has made most exhaustive and exact study of the daily life of the tribe;[7] Rafael Karsten has specialized in studying dances and magic rites among the Choroti and other Chaco tribes,[8] and Hunt has made a study of their language.[9] Valuable research work with regard to Indian tribes, who from a cultural point of view are allied to the Choroti, has been done, among others, by Ducci,[10] Fric,[11] Grubb,[12] Hawtrey,[13] Herrmann,[14] Karsten,[15] Koch-Grünberg,[16] and Nordenskiöld.[17] Whilst travelling in the Chaco 1908—1909, Nordenskiöld spent a long time with the Choroti and shared their way of living, as if he had been

[1] von Rosen (3).
[2] Internationaler Amerikanisten-Kongress (1), p. 649 et seq.
[3] Chervin (1), Part 4, p. 140 et seq.
[4] von Rosen (1), pp. 1—3.
[5] Lehmann-Nitsche (1).
[6] Lehmann-Nitsche (2).
[7] Nordenskiöld (11), (13), (17), (18), (19), (20), (21) and (22).
[8] Karsten (1), (2), (3), (4) and (5).
[9] Hunt (1).
[10] Ducci.
[11] Fric.
[12] Grubb.
[13] Hawtrey (1).
[14] Herrmann (1).
[15] Karsten (1), (2), (3), (4) and (5).
[16] Koch (1) and (2).
[17] Nordenskiöld (11), (13), (17), (18), (19), (20), (21) and (22).

[text continues on p. 23]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

114 By his living like an Indian among Indians, Nordenskiöld has in an unparalleled way succeeded in enriching ethnographical science, and his research achievement is one of the most noteworthy in the history of modern South American exploration.

101 The Choroti Indians are also called Chorote, Cholote, Tsoloti, Soloti and Solote. The final »s» added to these tribal names comes from the Spanish plural form, and has therefore in later works rightly been left out. The name they call themselves by is »yófuaha», or »yóshuaha», which probably means »pigeon people». If so, the pigeon would be the totem animal of the Choroti.

After the publishing of the valuable research, made by Hunt, of the Choroti language, it has become necessary to class this tribe with the [197] Mataco group, although the material culture of the Choroti in many respects shows an equally close kinship with the civilization of certain Guaycurú and Mascoi tribes, such as the Toba and the Lengua. That the Choroti have had their abode in the Chaco ever since the Inca period is highly probable, because, as already mentioned, their material culture in a [174] very obvious degree points to a strong influence from the ancient mountain civilization to the west.

101 131 The section of the Choroti tribe among whom I pursued my study, was at the time of our expedition located in the neighbourhood of Caiza (see map). Some of the Choroti I met in this district had, however, their chief place of resort on the Pilcomayo, and thither they intended to return after a visit to the sugar plantations in northern Argentina. As I have [166] been informed, my red friends from the Caiza region at some later time did something or other to the annoyance of the settlers of the district, whereupon they moved further into the Chaco, and have since that time probably never again come into contact with whites. According to Nordenskiöld, other Choroti have, however, immigrated into the country about Caiza. The main part of the Choroti tribe inhabits the region immediately to the east of the Pilcomayo, and roughly between 21° 45' and 22° 45' of south latitude.

Our main camp, Tatarenda, was situate a few leagues south-west of Caiza, and the Choroti of whom I made a study were located one league south-west of the camp.

000 Of the Choroti among whom I carried out my investigations, the men

[Text continues on p. 31]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

who was wearing it, for, according to his statement, this ornament originally belonged to an enemy killed by him (Cf. the »scalp lock» on the Indian in fig. 42).

On the Spaniards' first coming to the Inca kingdom, there was, naturally, in that country much that aroused their great astonishment. Among

Fig. 50. Bamboo casing for keeping ostrich-feather head ornaments. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 10. 3. 18.

Fig. 51. Palm leaf object, said to be meant for wearing in a frontlet. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 89.

other things, the strangers found it especially remarkable that Peruvian men of noble birth were wearing immense, often metal-mounted wooden discs, or hanging ornaments, in their pierced ear-lobes, which were distended to a monstrous size. This custom occasioned the Spaniards to give the Peruvian nobles the nickname of »orejones» — which might be

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

101 translated »big ears» — an appellation subsequently transferred to all such tribes within, or in the neighbourhood of, the Inca kingdom, among whom the wearing of ear-lobe discs was customary.

171 304 301 In our days, the practice of wearing ear-lobe discs is met with among a number of tribes distributed over the whole of that part of South America which lies to the north of the tropic of Capricorn.[1] On the Chaco, ear-lobe discs are extensively worn by the Choroti, Lengua[2] and Ashluslay, and are also found among some of the Mataco and Toba Indians.[3] Also in North America the custom of wearing ear-lobe discs, or blocks, appears to be very ancient.[4] The wearing of this kind of ear discs is, however, not limited to America, but is also found, among other places, in Central Africa.[5]

[302] 301 304

[178] Fig. 52. Brush-like ornament of false hair, for wearing pushed in under the frontlet. Choroti. Gran Chaco, Bolivia.[6] a. Riksm. 03. 3. 65.

[882]

Among the Choroti, all the men and youths have their ear-lobes pierced, and in the holes they wear discs (see for instance figs. 17, 30, 39, 53). These discs were almost always used for everyday wear, and invariably on state occasions. It very seldom happened that I saw a Choroti man without his ear-discs. Latterly, the practice of wearing ear-lobe discs has, in the same way as other old customs once prevalent among the Choroti, become less common, and nowadays it seems that the Choroti, for everyday use at least, often appear without their discs. The piercing of the ear-lobes is performed with a bone awl, or cactus spine, already during boyhood, but I did not see any boys under puberty age wearing discs. Neither is there anything in the literature indicating that Choroti boys put on ear discs before that age.[6]

But, on the other hand, immediately on having had their ear-lobes pierced, the Choroti children take to wearing bits of grass, or very slender

[1] Nordenskiöld (11), map 18.
[2] Koch (1), p. 218, and Hawtrey (1), p. 283.
[3] Nordenskiöld (11), p. 122.
[4] See for instance Moore (2), p. 282.
[5] von Rosen (4), plate 7, fig. A, and von Rosen (7), p. 124.

[114] [6] When it has been stated that the wearing of ear-lobe discs has nothing to do with pubescence [Nordenskiöld (13), p. 68], this is correct only in so far as the ear discs of the Choroti, like the tembeta of the Chiriguano, may, perhaps, first and foremost be attributed with a magical significance, and that their character of being symbols of puberty is only a secondary one. Cf. Karsten (4), p. 155.

2: Nordenskiold E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

The Ashluslay are called *Suhin*[1]) by the Lengua-Mascoy, *Etéhua* by the Tapiete, *Áshli* by the Choroti, *Sówua* or *Sówcash* by the Mataco, and *Sotegraik*[2]) by the Toba. A 101

They call themselves *Ashluslay*, as I have ascertained, and this is confirmed by HUNT[3]). The latter says it is the settlers on the lower Pilcomayo that call them Chunupi, a circumstance which has evidently misled him to identify them with a tribe of that name which has been known for a long time. The statements of settlers are to be taken with caution. An error of the same kind is to call the Ashluslay Tapiete.

The Choroti call themselves *Yóshuaha* (*Yójuaha*, acc. to HUNT.) However, I have preferred the former name, this being, moreover, the form in which it generally appears in the literature of the subject. It derives originally from the Chiriguano. They are called *Mánue* or *Mániue* by the Mataco. C 101

No archaeological investigations of any kind have been carried out in the territory of the Choroti and Ashluslay Indians. Not a single old grave, not one old dwelling has been examined there. And probably an archaeological examination of their territory would yield but little. It is exclusively the modern civilisation of these Indians from which we will try to draw some conclusions anent their history. A C 102

The Choroti and the Ashluslay live on and in the vicinity of the Rio Pilcomayo, a considerable river which flows down from the Bolivian plateau into the Rio Paraguay. A C 131

For the greater part the Rio Pilcomayo is not properly navigable. About where it cuts the tropic of Capricorn it loses itself in extensive swamps, the well-known «Esteros del Padre Patiño». It has a very unsettled course. More than once it has changed its course, and as you go from the A C 133

[1]) HUNT, p. 257.
[2]) FRIČ (1) p. 210.
[3]) p. 257.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

only smoke for pleasure, and I doubt whether they ever used the tobacco ceremonially as is the rule among the Indians of tropical South America. The custom is evidently of comparatively recent origin and has been introduced by the whites.

Choroti is a Guarani name given to our Indians by the Avas (Chiriguano) and now recognized by themselves. Their proper tribal name, however, is *Jóhuaha* [1]), a word the etymology of which is obscure but which seems to be equivalent to »our own people». Among themselves the Choroti never use any other name than Jóhuaha.

In the history of the Gran Chaco, a small and peaceful tribe like the *Choroti* can have played only an insignificant rôle, and the earliest European explorers seem not to have known them. The first author who mentions them is Father Lozano, S. J., who in his book of 1733 calls them Xolotas. But he tells us absolutely nothing about them, and the same may be said of several later travellers who occasionally mention them. The Swedish traveller von Rosen, who made a short visit among the Choroti in 1902, has published a small study of these Indians under the title *The Chorotes Indians of the Bolivian Chaco* (Stockholm, 1904). But v. Rosen's paper is based on very superficial observation and contains several errors which make its ethnographic value rather problematic. [2]) This may partly be due to the fact that v. Rosen never visited the Choroti in their own land on the other side of the Pilcomayo river, but only those families of the tribe which have been in the habit of living for certain periods near the village Caiza, situated just north of Yacuiba, at the easternmost cordilleras of the Andes.

[1]) Nordenskiöld erroneously gives this name as *Yóshuahá* (*Indianerleben*, p. 28) and Hunt equally erroneously as *Yofuaha* (*El Choroti o Yofuaha*, *Revista del Musco de La Plata*. Bd. 23. Liverpool, 1915). The Indians themselves most clearly pronounce their name *Jóhuaha*, with the accent on the first syllable. The f-sound is lacking in the Choroti language, as in the languages of many other South American Indians.

[2]) Thus, when v. Rosen says that »polygamy only occurs among the rich, and the caciques have quite a number of wives», this sentence alone contains three mistakes. First, the Choroti are strictly monogamous, any form of polygamy being prohibited by their social morality and their women, who are extremely jealous; secondly, there are no »rich» people among the Choroti, all being equally rich or equally poor; and thirdly, although we may speak of caciques or chiefs among them, these have very limited power and do not distinguish themselves from the rest of the tribe in the way v. Rosen's statement seems to indicate. — Evidently v. Rosen has confounded the Choroti chiefs with those of other and more advanced tribes, probably the Avas (Chiriguano) or the Tobas.

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Chane SF8
Choroti SK7
Mataco SI7
Chaco Indians SK4
Toba SI12
Tapiete SK13
Siriono SF21

/For the map showing the location and distribution of these tribal groupings, see 4: Nino, SF10 Chiriguano, category 116, pp. 447-452./

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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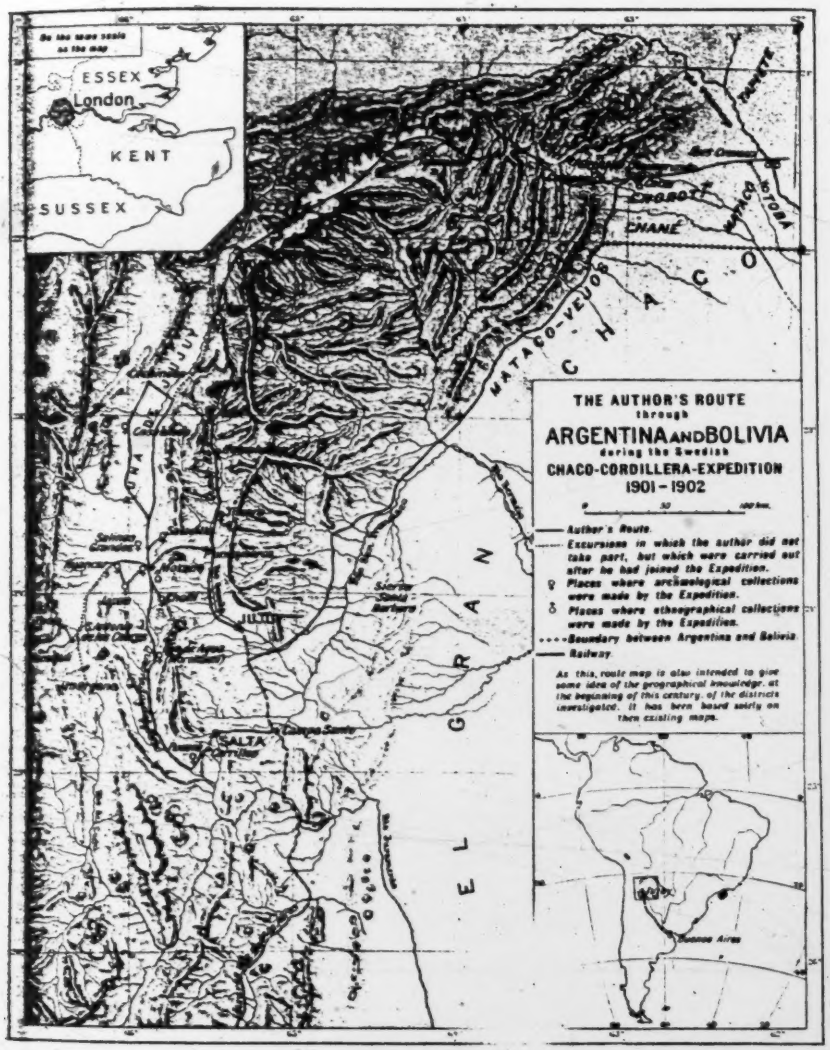

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6: Nordenskiöld--156 E-5 (1908-1909) 1912 SF10 Chiriguano SF/0

Mataco SI 7

Choroti SK6

Chane SF8

CE
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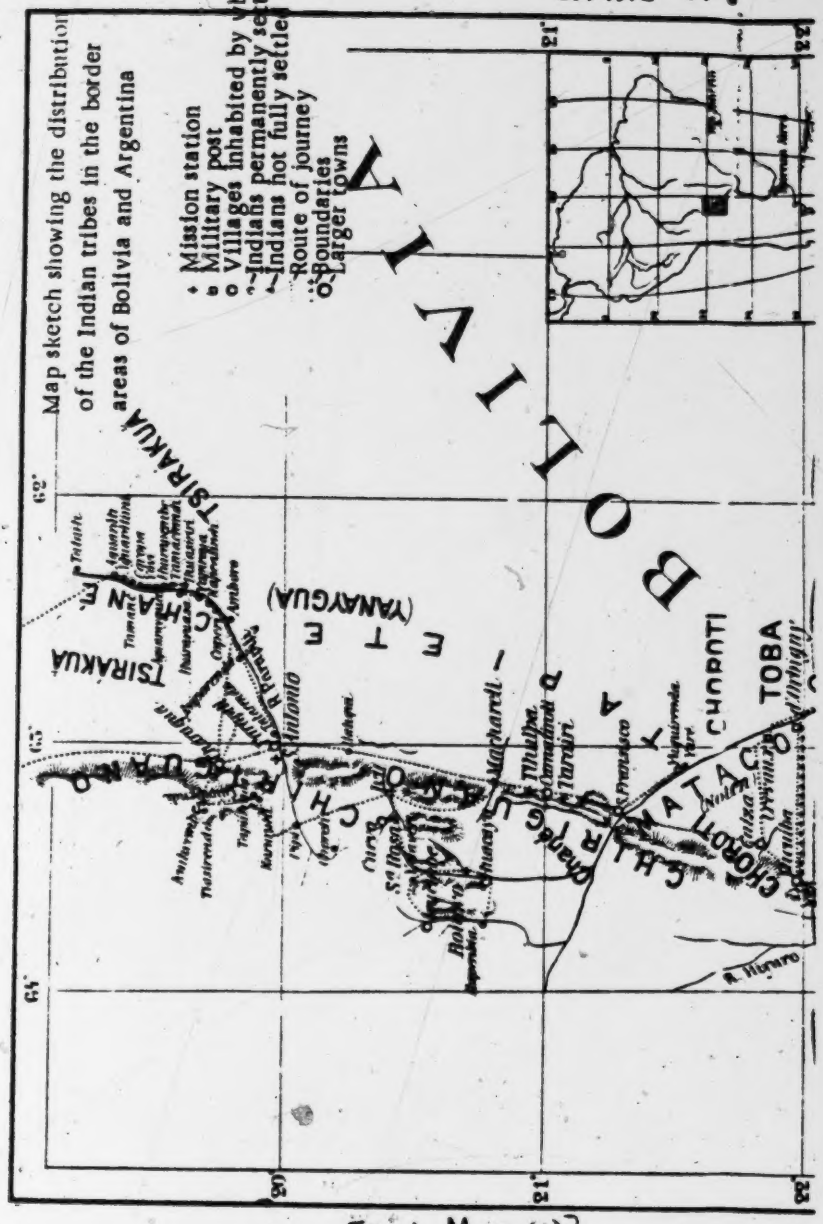
Map sketch showing the distribution of the Indian tribes in the border areas of Bolivia and Argentina
Mission station
Military post
Villages inhabited by whites
Indians permanently settled
Indians not fully settled
Route of journey
Boundaries
Larger towns
BOLIVIA
TSIRAKUA
CHAN
TSIRAKUA
(YANAYGUA)
CHIRIGUANO
CHORROTI
MATACO
TOBA
CHACO
Pilcomayo R.
Bermejo R.
Pilaya R.
Parapeti R.
Itiyuro R.
Tarija
Villamontes
Tartagal
Embarcación
Orán
Salta
Jujuy
Metán
Rosario de la Frontera
Rosario de Lerma
Tucumán
Santiago del Estero
Monte Quemado
Resistencia
Formosa
Asunción
Concepción
Corrientes
Buenos Aires
Rosario
Córdoba
Mendoza
San Luis
Santa Fé
Paraguay R.
Paraná R.
Uruguay R.
Salado R.
Dulce R.
Carcarañá R.
Tercero R.
Quinto R.
Desaguadero R.
Colorado R.
Negro R.
Chubut R.
Santa Cruz R.
Gallegos R.
Chico R.

E: Nordenskiöld--157 E-5 (1908-1909) 1912 SF10 Chiriguano SF16
Mataco SI 7
Choroti SK 6
Chané SF8

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XXXI.

Elements of Culture specially characteristic of the Choroti, Ashluslay and kindred tribes.

The characteristic culture-elements of the Chaco are in the following table denoted by = +.

Table 4.

1)	Dwellings.	
	«Porch-entrance» to huts	+
2)	Beds	—
3)	Cultivated plants and agricultural implements	—
4)	Implements used in harvesting wild plants.	
	Hooks for gathering fruit	+
	Fork for digging caraguatá	+
	Implements for pulling up grass	+
5)	Hunting weapons and implements	—
6)	Weapons seldom or never used for hunting	—
7)	Fishing tackle.	
	Club for killing fish	+
	Needle for stringing fish	+
8)	Domestic animals and articles connected with them	—
9)	Tools.	
	Wooden knives (Shape from the mountain civilization)	+
	Wooden awls	+
10)	Implements for making fire	—
11)	Hearths and articles connected with them	—

2: Nordenskiöld E-5 (1908-1909) 1919
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12) Implements and vessels used in the preparation and consumption of food.
- a) Used in the preparation of meal.
  - Earth mortars ..... +
- b) Cooking utensils ..... —
- c) Spit ..... —
- d) Vessels out of which food is eaten ..... —
- e) Implements with which food is eaten. —
  - Wooden knife used when eating watermelons +

13) Means of indulgence and articles in connection therewith: Pipe-cleaner ..... +
- Pipe-filter ..... +

14) Clothes ..... —

15) Articles connected with the deforming of the body —

16) Tattooing instruments. —

17) Ornaments for the body.
- Ankle bands of feathers ..... +
- Brow ornaments of human hair ..... +

18) Toilet articles ..... —

19) Apparatuses for carrying ..... —

20) Articles used for keeping things in.
- Bags of certain shapes ..... +

21) Games and playthings.
- Dolls made of toe-joints ..... +
- Tattooed dolls ..... +

22) Signalling and musical instruments, etc.
- Earthenware drum ..... +

23) Trophies ..... —

24) Property marks ..... —

25) Various kinds of handiwork.
- a) The making of rope and string and spinning —
- b) Sewing or the use of the eyed needle ..... —
- c) Knitting and plaiting
  - Technique (Fig. 60.3) ..... +
  - Technique (Fig. 60.6) ..... +
- d) Twisting of rope and string ..... —

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e)	Weaving	—
f)	Pottery	
	Armadillo tail for the polishing of earthenware	+
	Wooden tools for the polishing of earthenware	+
	Finishing and polishing of earthenware with resin	+
g)	Wood carving	—
h)	Bone and shell-bead work	—
i)	Carving and ornamentation of calabashes	.
j)	Feather work	—
k)	Leather work	—

Many of the characteristic culture-elements of the Chaco are adaptions due to the natural conditions prevailing there. Probably some of them have their origin elsewhere, though proof of this cannot be adduced.

As regards the shape and ornamentation of objects, details can be indicated in almost every article which are characteristic of the Choroti and Ashluslay, or at least of them and their above-mentioned kindred tribes. If a collection of objects from the Chiriguano and the Choroti were mixed together, I should be able to distinguish them without the least difficulty and without making a single mistake. On the other hand, if a number of Choroti and Ashluslay articles were mixed, I should not be able to make such a selection even with the aid of my large collections from these Indian tribes.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XXXIII.

Culture-elements among the Choroti and Ashluslay, the origin of which it is at present impossible to fix.

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We have been able to select certain culture-elements which the Choroti and Ashluslay received from the whites, a large number of which evidently came to the Chaco from the western area of civilization; some, again, derived from the northern and some from the southern part of S. America; and finally, some which seem to be peculiar to the tribes of the Chaco. There are still, however, a large number of culture-elements left.

We know, for instance, from what quarter the Choroti and Ashluslay learned the use of the handle on earthenware; but we do not know whence the art of making earthenware came to them. The distribution of the handle is markedly western, while the art of making pottery in general has been known all around the Chaco. Of course the Chaco Indians need not necessarily have adopted the manufacture of earthenware from the western area of civilization because their pottery was plainly influenced from that quarter. The same holds good concerning their use of the calabash, spinning, etc.

There is, as we saw in the foregoing, a large number of culture-elements among the Choroti and Ashluslay concerning which the literature on the subject gives so little information that it is impossible, at present, to indicate their distribution on the map. Culture-elements of this kind are, for instance,

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network and dwellings. They are, accordingly, indicated in the following table.

Many culture-elements now occur almost everywhere in S. America where the natural conditions for their occurrence are found. Consequently, it is impossible to distinguish the source where the Choroti and Ashluslay have derived them. To this category belong most cultivated plants and many other certainly ancient elements of culture.

Table 6.

1)	Dwellings.	
	Chaco huts (Ancient element of culture)	+
	Cooking sheds (Distribution imperfectly known)	+
2)	Beds.	
	Rush mat. (Distribution imperfectly known)	+
3)	Cultivated plants and agricultural implements.	
	Maize	+
	Zapallo (Cucurbita)	+
	Cotton	+
	Beans	+
	Tobacco	+
	Calabash fruit	+
	Sweet potatoes	+
	Digging stick	+
	Club for breaking up clods (Distribution imperfectly known)	+
	Implement for seeding corn-cobs (Distribution imperfectly known)	+
4)	Implements used in harvesting wild plants	—
5)	Hunting weapons and implements.	
	Bow and arrow in general (ancient culture-elements)	+
	Arrow for shooting birds	+
	Bola	+
	Sling (Map 4)	+
	Wristlets used by bowman (Distribution imperfectly known)	+

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	Snares (Distribution imperfectly known)	+
6)	Weapons seldom or never used for hunting.	
	Bone dagger. (Distribution imperfectly known)	+
	Fire arrow	+
	Lance (Post-Columbian history imperfectly known)	+
	Leather armour (Post-Columbian history imperfectly known)	+
7)	Fishing tackle.	
	Fishing by means of damming the stream. (Distribution imperfectly known)	+
	Landing -net. (Distribution imperfectly known)	+
8)	Domestic animals.	
	Dog. (Pre-Columbian distribution imperfectly known)	+
9)	Tools.	
	Jaw of the palmeta	+
	Bone awl. (Distribution imperfectly known)	+
10)	Implements for making fire.	
	Do. made from wooden rods (ancient culture element.)	+
11)	Hearths and articles connected with them.	
	Wooden spit (Map 7) (ancient culture-element)	+
	Pit- oven. (Map 8)	+
12)	Implements and vessels used in the preparation and consumption of food	
	a) Used in the preparation of meal	—
	b) Cooking utensils in general	+
	c) Vessels out of which food is eaten	
	Use of the calabash in general	+
	d) Implements with which food is eaten	
	Mussel-shell spoon (Distribution imperfectly known)	+
	Calabash spoon (Distribution imperfectly known)	+
	Eating-brush (Distribution imperfectly known)	+
13)	Means of indulgence	
	Tobacco-pipe (Map 14)	+

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14) Clothes.
A
C
Woven mantle (Post-Columbian history imperfectly known) ..... + 105
Women's garment; so-called «tipoy» ..... + 177

15) Articles connected with the deforming of the body
Ear-block. (ancient culture-element) (Map. 18) .. +

16) Tattooing (Map 19) ..... +

17) Ornaments for the body.
Necklace of bored teeth ..... +
Necklace and other ornaments of grains of corn, leather, etc ..... +
Rings of segments of the tail-skin of the lizard .... +

18) Toilet articles.
Stick-combs (in general) ..... +

19) Apparatus for carrying.
Carrying-net (ancient culture-element) (Map 25) .. +

20) Various articles for keeping things in ..... +

21) Games and playthings.
Cat-cradle game. (Distribution imperfectly known) +
Stilts (Distribution imperfectly known) ..... +
Bull-roarer (Distribution imperfectly known) .... +
Dolls in general ..... +

22) Signalling and musical instruments, etc.
Rattle gourd (Ancient culture element). (Map 31) +
Girdles of the claws of animals ..... +
Whistles in general ..... +
Flutes in general ..... +

23) Trophies.
Scalping ..... +

24) Property marks. (Map 34) ..... —

25) Various kinds of handiwork.
a) Manufacture of rope and string and spinning (in general) ..... +
b) Sewing or the use of the eyed needle ..... —
c) Knitting and netting.

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	Several kinds of knitting and netting. (Distribution imperfect-ly known)	+
	Mesh-stick (Distribution imperfectly known)	+
d)	Twisting of ropes and string (in general)	+
e)	Weaving	—
f)	Pottery (in general)	+
g)	Wood carving (in general)	+
h)	Bone and shell-bead work (in general)	+
i)	Carving and ornamentation of calabashes (in general)	+
j)	Feather-work (very imperfectly known)	+
k)	Leather-work (in general)	+

2: Nordenskiöld, Erland. An Ethno-Geographical Analysis of the Material Culture of Two Indian Tribes in the Gran Chaco. Comparative Ethnographical Studies, No. I. Göteborg: Elanders Boktryckeri Aktiebolag, 1919.

Pp. xii, 295; 60 plates; 44 maps.

Yale: C71 18 1

[This is a study by a professional anthropologist of the material culture of the Choroti and Ashluslay (SK5) tribes in the Gran Chaco. The emphasis of the work is on the distribution of these elements, with the actual amount of space devoted to the two tribes as such being relatively small. --Analyst]

Field date: 1908-1909
Analyst: James R. Leary

Evaluation: Ethnologist-5
Processed in 1961

1: Rosen, Count Eric von. Ethnographical Research Work during the Swedish Chaco-Cordillera Expedition 1901-1902. Stockholm: C. E. Fritze, Ltd., 1924.

Pp. xvi, 284; 34 plates; 283 text figures; 1 map

Yale: C71.067g

[Pp. 187-268, dealing with the Chiriguano, the Gauchos, the Indians of the Tarija Valley, and the Toba, have not been processed.]

[Rosen, an ethnologist and explorer, made an expedition to this region with Erland Nordenskiöld, the naturalist and archeologist, during the first years of the twentieth century. The present volume is a compilation of much of what he had written on the ethnography of the region in the intervening period. The Choroti section of the work is divided into five chapters: the country and the people, dwellings; dress and ornaments; modes of subsistence; food and drink, household furniture; narcotics and intoxicants, games and amusements; and family life and social organization, superstitions, illness and death. The emphasis throughout is upon description of material

1:Rosen, Count Eric von.

culture and comparisons with other South American groups. The volume is very well illustrated. --Analyst]

Field dates: 1901-1902
Analyst: Timothy J. O'Leary

Evaluation: Ethnologist-5
Processed in 1961

Lehmann-Nitsche, Robert. Estudios Antropologicas sobre los Chiriguanos, Chorotes, Matacos y Tobas. Anales del Museo de la Plata, Segunda Serie, Buenos Aires, 1908.

[This source presents a series of physical measurements of various Indian tribes in South America. --Analyst]

113, 102

Chane SF8
Choroti SK7
Mataco SI7
Chaco Indians SK4
Toba SI12
Tapiete SK13
Siriono SF21

/For the map showing the location and distribution of these tribal groupings, see 4: Nino, SF10 Chiriguano, category 116, pp. 447-452./

[For general cultural information on the Choroti Indians see also 2: Karsten, SI7 Mataco, category 116.]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

PREFACE.

In my books, »En förgången värld» and »Bland indianer»[1] I have given an account of the origin and composition of the Chaco-Cordillera Expedition, described the vicissitudes and adventures that befell it among the mountains of the Andes and in the Gran Chaco, and published the result of the researches I carried out during my sojourn in the Andean mountain region and the Gran Chaco. The present work is an English translation of such chapters of »En förgången värld» and »Bland indianer» as deal with my ethnographical studies. I give here below a complete list of the publications representing the result of the scientific work of the expedition.

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— ZUR KENNTNIS DER PHANEROGAMENFLORA DER GRENZGEBIETE ZWISCHEN BOLIVIA UND ARGENTINIEN, 1—4. KUNGL. VET. AKAD:s ARKIV FÖR BOTANIK: Vols. 5—8. STOCKHOLM 1906—1908.

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[1] von Rosen, E. (1), (10).

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114 The Chaco-Cordillera-Expedition set out from Sweden, in 1901, in two different parties. The first of these, which consisted of Baron Erland Nordenskiöld (the leader of the expedition, at that time a zoologist), Dr. Robert Fries, botanist, and Oscar Landberg, a taxidermist's assistant, left the home country on March 25th, arriving on May 12th at the town of Salta, in N. W. Argentina, the place that had been selected as the starting point and base of our exploration of the surrounding districts.

A Swedish-Argentinian, señor Eric Boman, who, during his stay in South America, had also occupied himself with scientific exploration and resear-

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[pp. 187-268 not processed]

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(1) *SOLBERG, O.* BEITRAGE ZUR VORGESCHICHTE DER ÖST-ESKIMO. VIDENSKABSSELSKABETS SKRIFTER. II. HIST.-FILOS. KLASSE.; 1907, NO. 2. KRISTIANIA 1907.
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113, 143

Chiriguano SF10
Choroti SK6
Mataco SI7
Tehuelche SH5
Caraja SP9
Tucano SQ19
Guarani SM4
Timbira SO8
Araucanians SG4
Paez SC15
Canari SD4
Jivaro SD9
Aymara SF5
Ona SH4
Yahgan SH6

/For information on genic locations based on Streng's diagram of co-ordinates of the blood groups of the natives of South America, see: 4: Hill et al., SS18 Warao, Category 116, pp. 107-114./

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PREFACE.

In my books, »En förgången värld» and »Bland indianer»[1] I have given an account of the origin and composition of the Chaco-Cordillera Expedition, described the vicissitudes and adventures that befell it among the mountains of the Andes and in the Gran Chaco, and published the result of the researches I carried out during my sojourn in the Andean mountain region and the Gran Chaco. The present work is an English translation of such chapters of »En förgången värld» and »Bland indianer» as deal with my ethnographical studies. I give here below a complete list of the publications representing the result of the scientific work of the expedition.

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[1] von Rosen, E. (1), (10).

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114 The Chaco-Cordillera-Expedition set out from Sweden, in 1901, in two different parties. The first of these, which consisted of Baron Erland Nordenskiöld (the leader of the expedition, at that time a zoologist), Dr. Robert Fries, botanist, and Oscar Landberg, a taxidermist's assistant, left the home country on March 25th, arriving on May 12th at the town of Salta, in N. W. Argentina, the place that had been selected as the starting point and base of our exploration of the surrounding districts.

A Swedish-Argentinian, señor Eric Boman, who, during his stay in South America, had also occupied himself with scientific exploration and resear-

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ches, was attached to the expedition, partly as an interpreter, partly to assist in the collecting work. When, at the end of February, 1902, our expedition broke up from Tarija, in Bolivia, Boman returned to Argentina.

The second party, which consisted of Herr Gustaf von Hofsten, the author and a servant, left Sweden on August 12th and reached Salta on September 25th. Herr von Hofsten was to collect birds for the Riksmuseum, and it was to be my business to carry out archæological and ethnographical research work.

On our arrival at Salta we were met by the other members of the expedition, who a few days previously had returned with abundant collections from an exploring journey into the districts around Sierra Santa Barbara, which had proved exceedingly successful from a scientific point of view. After having completed our equipment and a sufficient number of peons had been engaged, the expedition set out for Puna de Jujuy, a desert-like plateau at an altitude of about 3,500 metres above sea level, which we reached on October 14th. Here we made our main camp at Moreno, from which place many and long exploring journeys were made; among other places to Casabindo and Morohuasi. Ruined cities, graves, and other relics of antiquity were explored and examined, and the flora and fauna studied.

During our stay in the Puna region, which lasted over two months, there were made large, scientific collections, which were despatched to Salta before we resumed our journey over the mountains to the Tarija Valley, where we arrived on January 8th, 1902. The expedition here set to work on palæontological, zoological, botanical, archæological and ethnographical research, and large collections were obtained.

We remained in the Tarija Valley until February 24th, when we broke camp and set out for the low country, particularly the immense dry-soil forest region of the Gran Chaco, where we arrived on March 13th.

Our main camp was pitched in a glade in the primeval forest, not far from Caiza in the Bolivian part of the Chaco. An excursion was made to the Pilcomayo, when the author had to swim across the river in order to get into contact with some Toba Indians who at that time had their villages on the eastern bank of the river approximately opposite Fort Crevaux.

Whilst our expedition remained in the Gran Chaco, the Choroti, Chiriguano and Mataco were also studied, and ethnographical collections acquired

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from these tribes. At the same time, extensive and valuable zoological and botanical collections were obtained. On April 22nd we broke up from Fort Crevaux. After a toilsome horseback journey through the brambly, and in parts very poorly watered, forests along the foot of the Andes, we arrived on May 11th at Pampa Blanca (the rail-head near Jujuy), whence we continued by rail to Buenos Ayres. On June 27th, 1902, we were back in Sweden again.

EXPLANATIONS.

Objects marked »Riksm.» belong to the Ethnological Collections of the Swedish Riksmuseum. The numerals (e. g.: 03. 3. 1.) give the catalogue number of the objects. The figures within parentheses, together with the name of an author, refer to the list of literary sources given at the end of the book.

ERRATA.

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» 53,	» 3	from above.	» Caraguatá	» caraguatá.
» 56,	last line.		» Chorotis	» Choroti.
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» 75,	» 10	» »	» Cactus	» cactus.
» 97,	» 16	from above.	» te	» to.
» 126,	» 17	» »	» Chorotis	» Choroti.
» 166,	» 7	» »	» surreptiously	» surreptitiously.

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CHAPTER I.

The Choroti. (I). The country and the people. Dwellings.

Situation and extent of El Gran Chaco. Some attempts at interpreting the name of Chaco. Journeys of exploration in the Chaco. Geographical discoveries. Ethnographical research among the Chorotis. The name of the tribe. Area of distribution. Physico anthropological observations. Villages. Huts and their furnishings. Cooking sheds and drying-racks. Burning of villages.

El Gran Chaco (the great hunting ground) is the name given to the vast, partly forested, level country lying between the Andes and Rio Paraguay, the northern boundary of which roughly coincides with the parallel of 19 degrees of south latitude, whilst to the south it extends to about the 29th. 131

The meaning of the name of Chaco is not known with absolute certainty. Of the attempts at its translation so far made, in my opinion the most likely one is, that »chaco« (in quichua »chacu«) means an assembly, or the place for an assembly, especially for the purpose of game hunting on a big scale.[1] Against this supposition the Finnish scientist, Karsten, puts forward the objection that the Gran Chaco is nowise abounding in game, and that consequently the application of the name of »hunting ground« to this region would be hardly suitable; in addition, Karsten points out that there are no certain proofs in existence that the civilization of the Incas ever extended to the Chaco.[2] To this I would reply that although, as is known, *the interior* of the Chaco is deficient in game, its outskirts towards the Andes as late as 1902 to such an extent teemed with game, birds especially, that it is only in certain parts of Africa I have seen anything to compare with it. Therefore I think it very probable 136 114

[1] Lindman (1), p. 46.
[2] Karsten (2), pp. 23 and 24.

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[136] ●114 that hunting expeditions were sent out from the ancient Inca kingdom to the Chaco, among other things for the purpose of obtaining rare and valuable material for feather ornaments. If, in the time of the Incas, the reaches of the Chaco bordering on the Andes were as well supplied with game as was the case when we visited those parts — a very probable thing — the mountain-dwellers had no need to make any hazardous trips into the far interior of the Chaco. These hunters probably only knew the border reaches, and the name then found appropriate to this region has subsequently come to include the whole of the flat country around the Pilcomayo and the Bermejo. That intercourse was carried on between the mountain peoples living within the ancient Peruvian dominions, and the Chaco inhabitants during the Inca period, may with very great probability be gathered from, inter alia, Baron Erland Nordenskiöld's excellent analysis of the civilizations of two Chaco tribes.[1]

The name, Chaco, has also been translated as »the flight», i. e., the place of refuge,[2] but I do not think it very probable that the conquering peoples would have adopted a name that was only applicable from the point of view of a small number of expelled tribes.[3]

At the time of our expedition, the greater part of the Chaco was on the map shown as an unknown territory. Up till then, no white man had followed the course of the Pilcomayo from the Andes to the Paraguay. Since then, great changes have taken place on the Chaco, and our knowledge of this region has been considerably increased. The course of the Pilcomayo has been mapped, and the Bolivian government has established military outposts practically in the middle of the Chaco.

But to this day large tracts of the Chaco are entirely unknown. This may seem strange, considering that the Chaco to the west and to the east borders on regions that for centuries have been visited by Europeans, and now to a great extent brought under the sway of civilization.

That the Chaco still includes immense tracts that are only inhabited by Indians, may, no doubt, be ascribed to the circumstance that the greater part of it is little suitable for colonization. Only on the border, and along certain reaches of the Pilcomayo and the Bermejo, has it been found possible to carry on agriculture to advantage, and, with the exception

[1] Nordenskiöld (11).
[2] Karsten (2), p. 24.
[3] Cf. pp. 29 and 75.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

of the districts mentioned, the forests are not of such a nature as to lend themselves, in the near future, to profitable exploitation. Neither is there any ground for supposing that in the interior of the Chaco, where the soil in the greater part consists of loess-like strata, there is any prospect of finding any valuable minerals, or any other important products of nature. The great possibilities for cattle-ranching that exist in certain parts of this region, will, however, probably facilitate its colonization. If, contrary to expectation, gold-bearing ground, for instance, were discovered on the Chaco, even those parts of the »great hunting-ground» that are most difficult of access would, no doubt, before long be explored.

And it was precisely the thirst for gold and silver that first led white men into the Chaco. The Portuguese, Alejo Garcia, and some countrymen companions were the first whites who visited this region. About 1520 these adventurers, at the head of an army numbering some 2,000 Guarani Indians, marched right across the Chaco, from Rio Paraguay to the Andes, and invaded Peru. From the Indians of Rio Paraguay, Garcia had heard rumours of that country, and of its wealth in gold and silver, and it was covetousness of these precious metals that was the motive force in the hazardous and arduous march through the Chaco. Baron Nordenskiöld has established that this expedition was probably made some year, or years, before Pizarro's arrival in Peru, and that thus Garcia and his companions probably were the first Europeans who obtained personal knowledge of the ancient Inca kingdom.[1]

Although the Gran Chaco, as we have seen, was visited by white men at the beginning of the 16th century, it was only in the latter years of last century that any detailed and reliable information became obtainable of the more inaccessible parts of this region. The French explorer, J. Crevaux,[2] who intended to make extensive research of the country and population around the Pilcomayo, was given no opportunity of carrying out his plan, for, already at the outset of his expedition, in 1882, he was murdered by Chaco Indians, probably members of the Choroti, as well as the Toba, tribe. Another French explorer, Thouar, has described a journey across the Chaco.[3] The Norwegian, Lieutenant Storm, has published important observations from two expeditions of his on the

[1] Nordenskiöld (16), p. 46 et seq.
[2] Crevaux (1), pp. XIII—XVI.
[3] Thouar (1).

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

114 Pilcomayo,[1] whilst our countryman, Professor Lindman, has supplied very valuable contribution to our knowledge of the eastern parts of the Chaco.[2] Among the more important works on the Chaco that had been published prior to our expedition, those by Lozano[3], Peña[4] and Fontana[5] should also be mentioned, as they contain geographical, meteorological, ethnological, zoological and botanical data of great interest.

At the time of our expedition, the regions including the course of the Pilcomayo through the more central parts of the Chaco were, from a scientific point of view, still to a large extent completely unknown. It was in the attempt to explore these regions that Crevaux perished, and in the interior of the Chaco the two explorers, Ibareta and Boggiani, had also been killed by Indians. The murder of Ibareta took place the year before our expedition, and Boggiani fell a victim to the Indians in the same year that we visited the Chaco. Lista, too, met his death in this region shortly before our journey; according to his companions' statement, he took his own life.

After our expedition, and apart from Baron Nordenskiöld, many other explorers, among them the Finlander, Professor Rafael Karsten, have travelled in the Chaco and carried on extensive research work.

133 As I have already mentioned, the Gran Chaco is a partly wooded plain. In the eastern or central parts of the region the ground is not known to present any marked elevations, and it is only in the portion nearest to the Andes that any appreciable hills or rises are found.

Three large rivers, the Pilcomayo (fig. 1), the Bermejo and the Salado (Juramento) flow through the Chaco from north-east to south-west. Besides these, all the year round water-bearing rivers, there are, during the latter part of the dry season, only a very few water courses, the majority of which periodically dry up for part of the year; consequently, the country is exceedingly waterless.

132 133 During the rainy season, which practically coincides with the summer and, therefore, lasts from and including November until the end of April, the volume of water in the rivers increases rapidly, and here and there the rivers rise above their banks and flood large areas. Beds of water-

[1] Storm.
[2] Lindman (1) and (2).
[3] Lozano (1).
[4] Peña (1).
[5] Fontana (1).

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

136 very abundant in fish, and in their waters, as in most of the larger lagoons, alligators (Caiman sclerops) are present (fig. 15).

101 El Gran Chaco was in beginning of this century the country of the free Indians. Of the many tribes that inhabit this vast region, I have come into contact with Choroti, Chiriguano, Toba, Mataco and Tapiete, but it was only from among the first-mentioned that I had an opportunity to obtain any extensive collection.

[137]

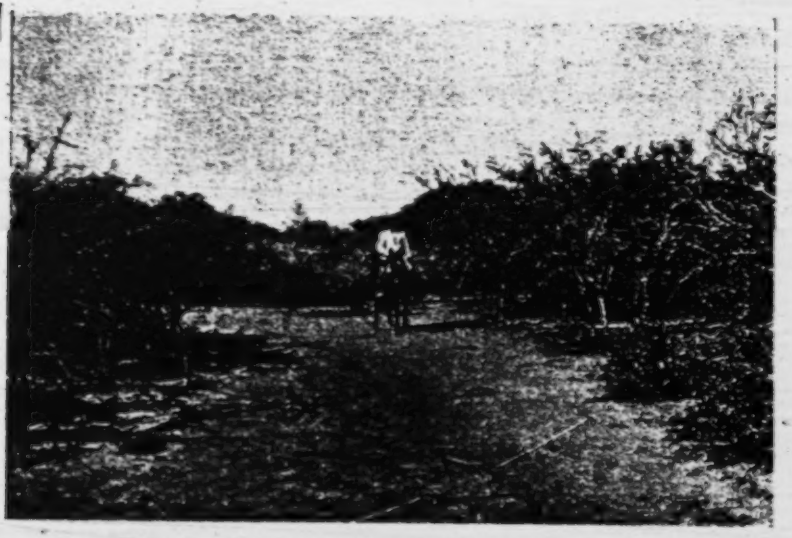


Fig. 3. Dry soil forest region. Gran Chaco. Bolivia. Photo. Rob. Fries.

101 ● 114 In the literature dealing with the Chaco, there was, prior to our expedition, not to be found much information concerning the Choroti. Their tribal name, in the form of »xolota», was, however, known already in the 18th century, when it was, probably for the first time, mentioned by Pedro Lozano, who, in a work published in 1733, enumerates a long string of names of tribes inhabiting the Chaco.[1] In his work, »Explorations dans l'Amerique du Sud», Thouar only gives a few, stray, items of information about the Choroti, he having come across that tribe on the Pilcomayo. The Choroti were, therefore, at the time of our expedition a

[1] Lozano (1).

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

101 tribe practically unknown from an ethnographical point of view, a circum-
114 stance which accounts for the interest paid to the incomplete description of the material culture of the Choroti tribe that I put before the 14th International Congress held at Stuttgart in 1904.[1] My lecture, which was also available in print, was in extenso incorporated with the report of the proceedings of the Congress,[2] and later appeared, slightly abridged, in »Anthropologie Bolivienne».[3] For reasons I have stated in the foreword of my book, En förgången värld,[4] my first description of the Choroti must nevertheless be looked upon as a work done in some haste.

114 Since the Swedish expedition of 1901—1902, various explorers have made valuable studies of the Choroti, and considerable increased our knowledge as to the physical properties, mode of life, and customs, of this tribe. The eminent anthropologist, Robert Lehmann-Nitsche, has carried out extensive anthropological measurements of a large number of *individuals of this tribe*,[5] and has also studied the language of these Indians.[6] Erland Nordenskiöld has made most exhaustive and exact study of the daily life of the tribe;[7] Rafael Karsten has specialized in studying dances and magic rites among the Choroti and other Chaco tribes,[8] and Hunt has made a study of their language.[9] Valuable research work with regard to Indian tribes, who from a cultural point of view are allied to the Choroti, has been done, among others, by Ducci,[10] Fric,[11] Grubb,[12] Hawtrey,[13] Herrmann,[14] Karsten,[15] Koch-Grünberg,[16] and Nordenskiöld.[17] Whilst travelling in the Chaco 1908—1909, Nordenskiöld spent a long time with the Choroti and shared their way of living, as if he had been

[1] von Rosen (3).
[2] Internationaler Amerikanisten Kongress (1), p. 649 et seq.
[3] Chervin (1), Part 1, p. 140 et seq.
[4] von Rosen (1), pp. 1—3.
[5] Lehmann-Nitsche (1).
[6] Lehmann-Nitsche (2).
[7] Nordenskiöld (11), (13), (17), (18), (19), (20), (21) and (22).
[8] Karsten (1), (2), (3), (4) and (5).
[9] Hunt (1).
[10] Ducci.
[11] Fric.
[12] Grubb.
[13] Hawtrey (1).
[14] Herrmann (1).
[15] Karsten (1), (2), (3), (4) and (5).
[16] Koch (1) and (2).
[17] Nordenskiöld (11), (13), (17), (18), (19), (20), (21) and (22).

[text continues on p. 23]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

● 114 a member of the tribe. He submitted to almost any sort of unpleasantness and discomfort in order to gain exact knowledge, not only of the daily occupations of the Indians, but also of their feasts and drinking-bouts. Nordenskiöld drank algarobo beer out of the same bowl as slavering old men, with whom he also had to take turns at smoking the same pipe. His face was spat upon, and scratched, and he was obliged to endure the bedfellowship, in his own blankets, of Indians infested with lice. When

Fig. 11. View in Gran Chaco from Cuesta de Aguayrenda's eastern slopes. Bolivia. Photo. E. v. R.

he wished to be tattooed, he had to put up with a horrible hag spitting on his bleeding tattoo wounds, and her rubbing in the saliva with her fist. But there were occasions when it was a matter of life and death. Once, when Nordenskiöld and his companion, Moberg, and an interpreter, stayed the night in an Ashluslay camp, the interpreter overheard the Indians discussing a plan to take their lives, and from their talk he also gathered that Moberg's fair-haired scalp was a dangerous temptation to the redskins!

● 114 By his living like an Indian among Indians, Nordenskiöld has in an unparalleled way succeeded in enriching ethnographical science, and his research achievement is one of the most noteworthy in the history of modern South American exploration.

101 The Choroti Indians are also called Chorote, Choloti, Tsoloti, Soloti and Solote. The final »s» added to these tribal names comes from the Spanish plural form, and has therefore in later works rightly been left out. The name they call themselves by is »yófuaha», or »yóshuaha», which probably means »pigeon people». If so, the pigeon would be the totem animal of the Choroti.

After the publishing of the valuable research, made by Hunt, of the Choroti language, it has become necessary to class this tribe with the [197] Mataco group, although the material culture of the Choroti in many respects shows an equally close kinship with the civilization of certain Guaycurú and Mascoi tribes, such as the Toba and the Lengua. That the Choroti have had their abode in the Chaco ever since the Inca period is highly probable, because, as already mentioned, their material culture in a [174] very obvious degree points to a strong influence from the ancient mountain civilization to the west.

101 131 The section of the Choroti tribe among whom I pursued my study, was at the time of our expedition located in the neighbourhood of Caiza (see map). Some of the Choroti I met in this district had, however, their chief place of resort on the Pilcomayo, and thither they intended to return after a visit to the sugar plantations in northern Argentina. As I have [166] been informed, my red friends from the Caiza region at some later time did something or other to the annoyance of the settlers of the district, whereupon they moved further into the Chaco, and have since that time probably never again come into contact with whites. According to Nordenskiöld, other Choroti have, however, immigrated into the country about Caiza. The main part of the Choroti tribe inhabits the region immediately to the east of the Pilcomayo, and roughly between 21° 45' and 22° 45' of south latitude.

Our main camp, Tatarenda, was situate a few leagues south-west of Caiza, and the Choroti of whom I made a study were located one league south-west of the camp.

000 Of the Choroti among whom I carried out my investigations, the men

[text continues on p. 31]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

translated »big ears» — an appellation subsequently transferred to all such tribes within, or in the neighbourhood of, the Inca kingdom, among whom the wearing of ear-lobe discs was customary.

In our days, the practice of wearing ear-lobe discs is met with among a number of tribes distributed over the whole of that part of South America which lies to the north of the tropic of Capricorn.[1] On the Chaco, ear-lobe discs are extensively worn by the Choroti, Lengua[2] and Ashluslay, and are also found among some of the Mataco and Toba Indians.[3] Also in North America the custom of wearing ear-lobe discs, or blocks, appears to be very ancient.[4] The wearing of this kind of ear discs is, however, not limited to America, but is also found, among other places, in Central Africa.[5]

Fig. 52. Brush-like ornament of false hair, for wearing pushed in under the frontlet. Choroti, Gran Chaco, Bolivia.[6] a. Riksm. 03. 3. 65.

Among the Choroti, all the men and youths have their ear-lobes pierced, and in the holes they wear discs (see for instance figs. 17, 30, 39, 53). These discs were almost always used for everyday wear, and invariably on state occasions. It very seldom happened that I saw a Choroti man without his ear-discs. Latterly, the practice of wearing ear-lobe discs has, in the same way as other old customs once prevalent among the Choroti, become less common, and nowadays it seems that the Choroti, for everyday use at least, often appear without their discs. The piercing of the ear-lobes is performed with a bone awl, or cactus spine, already during boyhood, but I did not see any boys under puberty age wearing discs. Neither is there anything in the literature indicating that Choroti boys put on ear discs before that age.[6]

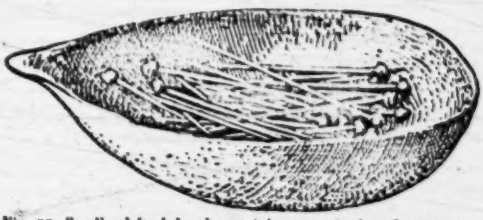
But, on the other hand, immediately on having had their ear-lobes pierced, the Choroti children take to wearing bits of grass, or very slender

[1] Nordenskiöld (11), map 18.
[2] Koch (1), p. 218, and Hawtrey (1), p. 283.
[3] Nordenskiöld (11), p. 122.
[4] See for instance Moore (2), p. 282.
[5] von Rosen (4), plate 7, fig. A, and von Rosen (7), p. 134.
[6] When it has been stated that the wearing of ear-lobe discs has nothing to do with pubescence [Nordenskiöld (13), p. 68], this is correct only in so far as the ear discs of the Choroti, like the tembeta of the Chiriguano, may, perhaps, first and foremost be attributed with a magical significance, and that their character of being symbols of puberty is only a secondary one. Cf. Karsten (4), p. 155.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

304 pattern with the cactus needles, or bone awl, until beads of blood appear, when the soot-mingled saliva is rubbed into the punctures. After healing, the tattoo marks assume a bluish colour.

302 At dances, lovers' meetings, and other important occasions, men and women paint their faces (figs. 62, 67—70 and 74—76). Face-painting may be done either in red (figs. 67—68 and 74—76) or in black (fig.



[415 439]

Fig. 77. Small calabash bowl containing cactus spines for tattooing. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 87.

Fig. 78. Red paint, ready prepared for face-painting. This lump of paint, which is wrapped in a sheath of palm leaf, may possibly have reached the Choroti by barter from the Chiriguano. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 104.

Fig. 79. Small calabash bowl containing fruits of Bixa orellana. From the seeds of these fruits colour is prepared for face-painting. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 103.

Fig. 80. Miniature bowl of wood, holding colour seeds. The bowl and the seeds have possibly been obtained by the Choroti through barter with the Chiriguano. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 180.

69), or in both red and black (fig. 70). Painting the face in red is commonest. The black paint consists of soot and saliva, whilst the red colour (fig. 78) is prepared from seeds of Bixa Orellana (fig. 79). These seeds are usually obtained by barter from the Chiriguano, and are carefully kept by the Choroti in small calabashes. I have also seen miniature wooden bowls (fig. 80) used as receptacles for these colouring seeds after they have been taken out of the follicle.[1] The soot is usually kept in a

[386 439]

[114]

[1] Owing to a mistake having occurred as to the identity of seeds, in my first treatise on the Choroti I have erroneously stated that the red paint used in face-painting is made from the seeds of Caesalpina melanocarpa.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

skinning or gutting, and are usually eaten with entrails, excrement and all. When the Choroti eat the entrails of larger animals, they do not first rinse them out, but are, at best, content with squeezing out the contents. Nordenskiöld has seen them eating intestinal contents as spinach together with the meat.[1] Fish is grilled, either by being laid on glowing embers, or tied between two sticks stuck into the ground by the fireplace.

As servers for food are used bowls of clay, wood, or calabash shell, or merely large, fresh leaves.

In foregoing chapters I have given the names of such plants, wild as well as cultivated, as are of importance in the food supply of the Choroti. Vegetables are eaten raw, boiled, roasted or dried. The Choroti, like other Chaco tribes, eat the fruits of the algaroba, and other similar fruits, in the following, rather original way. The raw fruits are put into a large wooden mortar (fig. 122), and there pounded up. The pulp is put into a calabash bowl, where it is stirred up with water, and the dish is then ready for eating. Those who are about to partake, squat down around the bowl, and each individual helps himself with his bare hand to the pulpy mass, which he puts into his mouth, chews and sucks, whereupon he spits his mouthful of mush back into the bowl. Another mouthful is taken, and in due course spat out, and so on. This is repeated by all the participants of the meal until all the sweet and nutritious components of the mess have been used up. What a bowl of »fruit cheese» is like, after half-a-dozen Indians have been eating and spitting for a while, the reader may possibly picture to himself, by the aid of his imagination.

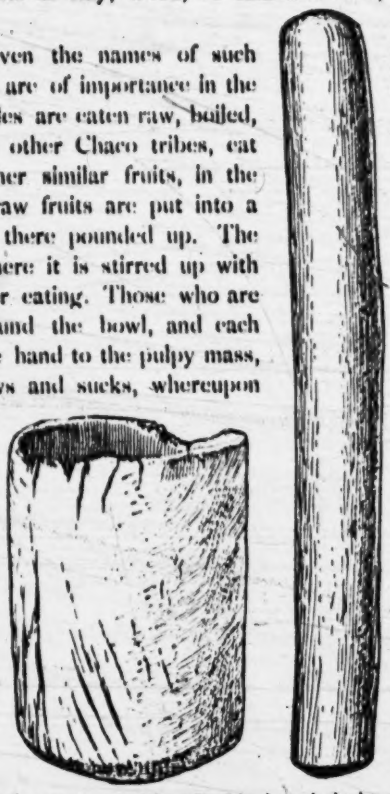


Fig. 122. Mortar and pestle of hard wood, the latter consisting of palo santo. Choroti. Gran Chaco. Bolivia. 1/4. Riksm. 03. 3. 155 and 03. 3. 157.

In another work of mine I have said that the Choroti eat the *fruits*

[1] Nordenskiöld (18), p. 53.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

114 of the chaguar (chahuar).[1] This statement, which is erroneous, is due to
262 the similarity of sound existing between chaguar[2] and chañar.[3] The *fruits* of the latter are eaten by the Indians, whilst of the former only the rootstock is edible.

251 By drying, the Choroti preserve vegetables against seasons of shortened food supply.

263 Personally I have not seen the Choroti use salt, but, nevertheless, they possess this condiment. Possibly they, like the Lengua, extract salt from the ash of a plant growing on the Chaco.[4] Salt-making from vegetable ash is known to many primitive peoples.[5]

264 Among the Choroti I never saw men and women eating together.

[462] The preparing of food is, as a rule, the work of the women. The
515 Choroti are not dainty about their food, and the uncleanliness which is
252 a distinguishing trait in culinary matters among these Indians surpasses almost anything I have ever observed among other primitive peoples, with the exception of the Mataco Indians. Of the latter, however, my experience is limited to only a few families, and it may be unfair to judge the whole tribes from those.

271 Water, often muddy, ordinarily forms the drink of the Choroti. When in the dry season the Indians are on the move, or from some reason or other find themselves far away from any river, they sometimes suffer very badly from lack of water.

273 In the season for harvesting wild fruits, such as algaroba, tusca, and chañar, an intoxicating fruit beer is brewed. During the time of year that I visited the Choroti, there were no fruits of which any intoxicating beverage could be brewed; consequently I never had an opportunity of observing either the brewing of beer, or any drinking carousal. This led me to suppose that the art of brewing fermented liquor was unknown to the Choroti. Nowadays the Choroti have learnt from the Chiriguano also how to brew maize beer. Of the Choroti method of beer-brewing, Nordenskiöld has given the following description:

»When tusca beer is to be made, the fruit is first of all ground, and then water added, the whole being thereupon left in a dirty animal hide,

[1] von Rosen (3), p. 9.
[2] Bromelia serra.
[3] Gourliea decorticans.
[4] Hawtrey (1), p. 287.
[5] For one method of producing salt from plants, see von Rosen (4), p. 240.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

arrived at this plantation to look for work. Led by their chiefs, they had made the long journey from the region of their homes. The chiefs, some of whom had met us in the Chaco, whilst others had only heard of us, wished to pay us a call. Personally I do not possess any notes about this reception, but I have come across some in Fries' diary. He thus refers to the incident: »When the Choroti Indians, whom we knew from Tatarenda and who were now working here, saw us, they came, almost to a man, and greeted us, being evidently very glad to meet us again. *The principal chief, at the head of all the lesser caziques*, was among those who came and paid us their respects.»[1]

A favoured position in the village community is that held by the medicine men; for their services they are rewarded by a — from a Choroti point of view — generous remuneration in the form of food and drink. That among the Choroti the medicine men are held in great esteem, and that everybody is anxious to be on good terms with them, appears only natural to anyone with a knowledge of what an important part magical conceptions play with these Indians. It is largely by the Finlander explorer, Rafael Karsten — oft-quoted in the present work — that ethnological science has been enriched by information and detailed reports on the magical customs and practices of the Choroti, as well as of other Chaco tribes.[2]

The Choroti Indians believe that man, all his life through, is more or less subject to influences from spirits, who, on the whole, are of a harmful nature. Especial danger is to be apprehended from spirits on certain occasions such as child-birth, pubescence and death. Usually the evil is worked by a spirit, »mohsek», entering a person through one of the orifices of his body and thereby assuming possession of him. If at birth a child is deformed or very sickly, it is supposed to be possessed by some evil »moshek», and is on that account killed.[3] When a girl has attained the age of puberty, during the first critical, time she must keep a covering over her head, so that no evil spirit may be able to enter her body by way of her nose, mouth, eyes or ears.[4] The occasion of a girl attaining puberty is celebrated with a dance which undoubtedly is of a magical

character.

[1] Professor Robert Fries: diary, X, p. 14. Italics by von Rosen.
[2] See Bibliography attached.
[3] Karsten (4), p. 176.
[4] Karsten (4), p. 165.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

I.

Introduction and Plan of the Work.

A
C
128

In the following pages I will attempt to analyse the material culture of two Indian tribes and contribute to our knowledge of their history. For the material of my investigations I have taken two tribes in the Gran Chaco of S. America, the Choroti and the Ashluslay, of whom I gained some considerable first-hand knowledge during my journey in 1908—09. It is only of late that these tribes have been made the object of study.[1]) Their culture is much of the same kind, and has been preserved in tolerably complete primitiveness.

A
C
114
197

HUNT[2]), who has studied the language of the Choroti and the Ashluslay, would identify the latter with the Chunupi, a Chaco tribe that has been known for a long time, but his assumption seems to me insufficiently established. In proof of this I here give a few common Ashluslay words, taken from HUNT's list of words, and place beside them equivalent Chunupi words, taken from LAFONE QUEVEDO[3]).

[1]) Cf., in addition to my own works, those of HUNT, v. ROSEN, HERRMANN, and LEHMANN-NITSCHE.

[2]) P. 257. In these notes only the page or the illustration is referred to, to which attention is drawn. The title of the work in question must be sought in the bibliography. Where more than one work is given under an authors name, a number is assigned to each work and quoted in these notes.

[3]) (1), p. 122.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

A C 174

To these must be added obvious cultural elements that have come directly or indirectly from the white races.

A C 121

The task before us is now to determine, as exactly as possible, these conjectural influences from various sources, and to define their nature and range; also, if possible, to find out from what districts the Choroti and Ashluslay originally started for the tracts they now inhabit.

A C 128

To this end I have adopted the method of marking on the map of S. America the geographical distribution of a great number of cultural elements characteristic of the Choroti and Ashluslay, i. e. I have marked on the map, as exactly as possible, the distribution of each cultural element throughout the S. American continent

I have therefore attempted to draw up maps of the weapons, ornaments, articles of clothing, household utensils, and so on, characteristic of the Choroti and Ashluslay Indians in South America.

I have likewise tried to sketch maps of the distribution of various examples of technical skill exemplified by these Indians. For this purpose I have turned to literary studies, besides utilizing the extensive collections that I made during my travels in S. America.

A C [114]

Thus, for instance, in determining the distribution of a cultural element, I have first mentioned its occurrence among the Indian tribes visited by me personally. These are, in addition to the Ashluslay and the Choroti, the Atsahuaca (in the border-land of Peru and Bolivia), Aymara, Baure, Canichana and Cayubaba (in N. E. Bolivia), Cavino (on the Rio Beni), Chacobo (in N.E. Bolivia), Cháma (on the R. Madidi, a tributary of the R. Beni), Chané (on the R. Itiyuro in North Argentina, and the Rio Parapiti in Bolivia) Chimane (on the R. Maniqui, a tributary of the R. Mamoré), Chiriguano, Churápa (near Sa. Cruz de la Sierra), Guarayú (Guarayos, Bolivia), Guarayú-Pauserna, Huanyam and Huari (near the R. Guaporé), Itonama (in N.E. Bolivia) Mataco (in the Gran Chaco), Mosetene (on the R. Beni),

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

A C 114 128

Tambopata-Guarayo (on the R. Tambopata in Peru) Tapiete and Toba (in the Gran Chaco), Tsirakua (in the Chaco Boreal), Yamiaca (on the R. Inambari in Peru), and Yuracáre (on the R. Chapáre and the R. Sécure in Bolivia).

A C 127

I have moreover gone through the literature dealing with the Indians of South America, as far as it was accessible to me. In the case of a few cultural elements I could follow in part the statements of FRIEDERICI, PATER SCHMIDT RIVET and others.

A C 114

Unfortunately, with regard to extensive tracts, there are but sparse statements about the material culture of the Indians, indeed, about any aspect of the civilization of the Indians. Such tracts as are little known are those round the R. Ucayali and the R. Tapajos. An ideal work for those who would essay comparative investigations similar to the one here attempted, is KRAUSE's about the tribes on the R. Araguaya. One will find there everything one looks for about the tract examined. Of rarely quoted works that I have made use of here, the one by SÁNCHEZ LABRADOR on the Chaná and Mbayá is perhaps the most important.

Of unpublished museum material I have drawn chiefly upon what the Swedish museum had to offer. A great number of valuable particulars have been communicated to me by friends and colleagues, among whom I am indebted to Dr. G. Antze of Hamburg, Mr. Kai Birket-Smith of the National Museum, Copenhagen, (M.C.), Dr. W. Foy, Director of the Rautenstrauch-Joest Museum, Cologne (M. f. V. C.), Dr Franz Heger, Director of the Ethnological Museum, Vienna (M.f.V.W.), Dr. Th. Koch-Grünberg, Director of the Ethnological Museum, Stuttgart (M.f.V.S.), Dr F. Krause, Ethnological Museum, Leipzig (M.f.V.L.), Dr J.P.B. de Josselin de Jong, Royal Ethnographical Museum, Leiden, Prof. Dr. L. Scherman, Ethnological Museum, Munich (M.f.V.M.), Dr. Max Schmidt, Berlin, Prof. Dr. E. Seler, Ethnological Museum, Berlin, (M.f. V.B.) Prof. Dr. Karl v.d. Steinen, Berlin, and Dr. G. Thilenius, Director of the Ethnological Museum, Hamburg, (M. f. V. H.).

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay

For several reasons I have confined myself to an investigation of the material culture of the Choroti and Ashluslay Indians. Maps elucidating the geographic distribution of certain conceptions and social circumstances can of course also be put together. Unfortunately, however, it has proved that in such a task one is continually brought up against the difficulty that primary facts are lacking for vast regions.

I might have taken another tribe than the Choroti and the Ashluslay, and have attempted an analysis of their civilization in the same way. That I should have chosen these particular tribes is due to my possessing a very complete collection of their things, and to these tribes being fairly untouched by the civilization of the white races. In addition to this, I have been greatly interested in the influence of the culture of the mountainous region of the Chaco. In reality, the maps and particulars here given also afford much information about other tribes than those dealt with in the first instance, and I therefore hope that the present work will be of some use to scholars whose researches deal with other parts of S. America.

A few years ago I published a book of travels[1]) in which I gave a fairly full account of the civilization of the Choroti and the Ashluslay. It will therefore be sufficient in the present work to refer to the data necessary for the tables and maps, i. e. the data calculated to throw light upon the geographical distribution and the origin of the different cultural elements.

Wherever I have come across a reliable authority on, let us say, a certain kind of weapons in the kingdom of the Incas at the time of the Discovery, I have assumed that it

[1]) »Indianlif», Stockholm, 1910. There is a Translation into German under the title of »Indianerleben», Leipzig 1912. There is also a French edition, which is unfortunately very faultily translated, and against which I must warn readers. There are some errors, too, in the German translation.

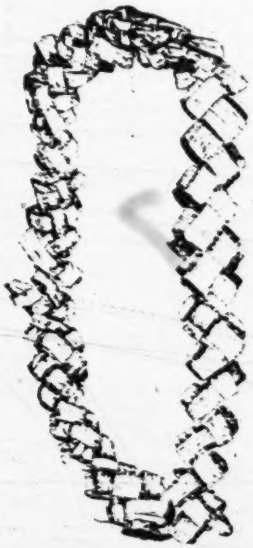
Guiana SR1
Choroti SK6
Ashluslay SK5

G 285 353 /462 cont /

serve as amulets, and, in any case, as ornaments. (Roth, pp. 497-499, Figs. 241-244 and p. 270; Koch-Grünberg, 2, Vol. II, p. 244.) In the same way the Chiriguano Indians decorate their huts with these figures, which they take care to have blessed. Exactly as in Europe they keep palm branches as lucky charms. Rosen (1, p. 61, Fig. 51) publishes a similar straw amusement which he found among the Choroti and which was pointed out to him as an ornament worn on the forehead. This explorer suspects the exactitude of this information and supposes that a ritual object is concerned. In reality, it is only a "flower," which the Choroti described by Rosen probably received or bought in some Chiriguano mission. It is enough to compare the figure of it that he gives us and ours in order to be convinced of this.

C 285 353 708 789

Ci 114 285 301



A 285 301

Fig 119. Wreath of plaited palm leaves (amusement or ornament?). Ashluslay. Prov.: Estero Patiño. (1/4 nat. size.)

A C Ci 285 171

Figures made of palm leaves are not, however, unknown to the other Indians of the Chaco. The Ashluslay sold me a diadem braided according to this principle (Fig. 119) and Rosen (1 Fig 44, p. 48) reproduces an identical head-ornament which he bought from a Choroti tribe.

Ashluslay SK5
Mataco SI7
Choroti SK6
Tapiete SK13

/1 cont./

000 the Sociedad Cientifica del Paraguay. Having also visited
C the Churupí Indians at the mission near Lake Escalante, about
A 25 kilometers from the mission at Esteros, I continued my
M 114 journey on September 5 as far as Linares, where I found a num-
M ber of Mataco Indians, who in part lived in a town some seven
[361] kilometers from Linares and in part had come from the other
side of the Pilcomayo River to Linares.

C /2/ On September 9 I left Linares and on the next day
A 114 arrived in Guachalla, from where I visited the Churupí camp
A /tolderia/ about seven kilometers away.
[361]

On September 11 I left Guachalla for the fort of Cururenda,
C where I had the occasion to see the Chorote /Choroti/ Indians,
CI 114 who were living in a camp some three kilometers from
CI Cururenda, as well as some Toba and Mataco, who came
[361] from the other side of the Pilcomayo to Cururenda.

C On September 15 I continued my journey as far as Oruro,
114 in the environs of which I visited the Tapieté. My escort,
Lieutenant Cabello, who knew these Indians well, took me to
T their two camps, one of which is 15 and the other 32 kilo-
[361] meters from Oruro.

C On September 19 I left Oruro, and passing through
114 Capirendá and Carandayty, in the company of Lieutenant
Díego Corvalan, I arrived in Machareti, where I remained
from September 21-25. Since Machareti is a Chiriguano
town, I had a good chance at this place and at the end of my
journey, to observe this interesting Indian tribe.

Beginning my return on September 25, I passed in succes-
sion through Capirendá, Carandayty, López de Filippis, and
C Puerto Casado, arriving in Asunción on October 8.
[122] Thanks to the great help of the military authorities, it was
possible for me to pass through large areas of the Paraguayan
Chaco during the relatively short time of two months, to get
acquainted with a large number of native tribes of the Chaco,
to take photographs of these tribes, and to make up vocabularies
000 of their different languages. Outside of the Toba, whom I met

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574 only smoke for pleasure, and I doubt whether they ever used the tobacco
276 ceremonially as is the rule among the Indians of tropical South America.
[177] The custom is evidently of comparatively recent origin and has been introduced by the whites.

Choroti is a Guarani name given to our Indians by the Avas (Chiriguano) and now recognized by themselves. Their proper tribal name, however, is *Jóhuaha* [1]), a word the etymology of which is obscure but which seems to be equivalent to »our own people». Among themselves the Choroti never use any other name than Jóhuaha.

In the history of the Gran Chaco, a small and peaceful tribe like the *Choroti* can have played only an insignificant rôle, and the earliest European explorers seem not to have known them. The first author who mentions them is Father Lozano, S. J., who in his book of 1733 calls them Xolótas. But he tells us absolutely nothing about them, and the same may be said of several later travellers who occasionally mention them. The Swedish traveller von Rosen, who made a short visit among the Choroti in 1902, has published a small study of these Indians under the title *The Chorotes Indians of the Bolivian Chaco* (Stockholm, 1904). But v. Rosen's paper is based on very superficial observation and contains several errors which make its ethnographic value rather problematic. [2]) This may partly be due to the fact that v. Rosen never visited the Choroti in their own land on the other side of the Pilcomayo river, but only those families of the tribe which have been in the habit of living for certain periods near the village Caiza, situated just north of Yacuiba, at the easternmost cordilleras of the Andes.

[1]) Nordenskiöld erroneously gives this name as *Yóshuahá* (*Indianerleben*, p. 28) and Hunt equally erroneously as *Yofuaha* (*El Choroti o Yofuaha, Revista del Museo de La Plata*. Bd. 23. Liverpool, 1915). The Indians themselves most clearly pronounce their name *Jóhuaha*, with the accent on the first syllable. The f-sound is lacking in the Choroti language, as in the languages of many other South American Indians.

[2]) Thus, when v. Rosen says that »polygamy only occurs among the rich, and the caciques have quite a number of wives», this sentence alone contains three mistakes. First, the Choroti are strictly monogamous, any form of polygamy being prohibited by their social morality and their women, who are extremely jealous; secondly, there are no »rich» people among the Choroti, all being equally rich or equally poor; and thirdly, although we may speak of caciques or chiefs among them, these have very limited power and do not distinguish themselves from the rest of the tribe in the way v. Rosen's statement seems to indicate. — Evidently v. Rosen has confounded the Choroti chiefs with those of other and more advanced tribes, probably the Avas (Chiriguano) or the Tobas.

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C 114

In 1908 another Swedish ethnographer, Erland Nordenskiöld, lived in all for about three months among four or five of the Pilcomayo tribes, and in his popular book *Indianerleben in El Gran Chaco* (1912) has given a general account of the material culture and the daily life of these natives. For detailed and methodical studies of their social customs, religious beliefs, etc., Nordenskiöld had no time and no training, and probably very little interest, since the main object of his travels in the Gran Chaco was to make ethnographic collections for Swedish museums. It is curious that although Nordenskiöld lived on very friendly terms with the Choroti and the Ashluslay and tried in every respect to accommodate himself to their customs, he could find out nothing about their intellectual culture and religion, not even the name of their spirits. Thus for instance Nordenskiöld erroneously describes the dances of the Choroti as being purely profane, overlooking their magical or religious character, which of course gives them their chief interest. As to the Tobas, the most important of the Chaco tribes, Nordenskiöld did not visit them at all.

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The English missionary Rickhard J. Hunt, who visited the Choroti after I had left the Chaco, has chiefly studied their language.

My own task was to complete Nordenskiöld's general account of the material culture of the Chaco tribes with as detailed studies of their customs and intellectual culture as possible. For this purpose I stayed about eight months among the Choroti, after which I settled down among the Tobas, making also occasional visits to some Mataco tribes which were culturally closely related to the Tobas. My studies were rendered particularly difficult by the fact that neither the Choroti nor the Tobas speak Spanish, while interpreters were impossible to obtain. I had to pick up both languages gradually, which of course meant a considerable waste of time since language to me could only be a medium for the study of native culture and was not in itself the object of my studies. It was not until the end of my stay among the Choroti that I met some Indians who could speak a little Spanish. Another thing which, in its way, hampered my studies of the Choroti was the difficulty of getting provisions during the dry season, when the natives themselves are often brought to the very verge of starvation. Since the river was as yet too swollen to allow me to cross it for the purpose of returning to Yacuiba, I myself had similar difficulties until at last I got some provisions from one of the few settlers living on the Pilcomayo.

Owing to these circumstances the material collected by me among the

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old men to die a natural death, but when they grow very weakly and sickly they kill them with an arrow-shot in the heart, whereupon they burn them with all their property instead of burying them, which among the Choroti is the general mode of disposing of the remains of the dead. The reason which they gave me for this custom was that if an old man is allowed to die a natural death he will be changed into an evil demon (*mōhsek*), who will rage in the village and kill all the people. This, according to their idea, can be prevented by giving the old men a premature, violent death.[1]) In order to understand this custom we must, moreover, take into consideration that to the mind of these Indians *all* aged men are more or less versed in the magic art, *i. e.* are sorcerers, and the spirits of sorcerers are specially feared.

The fact that old men and sorcerers are believed to be transformed after death into evil *mōhsek* seems to suggest that these spirits or demons are nothing but disembodied human souls, who have in the after-life been changed into supernatural and mostly evilly disposed beings. As a matter of fact, the death-spirit residing in the grave where a dead body has been buried is called *mōhsek* by the Choroti. Like most other primitive peoples the Choroti fear the burial-places because they fear coming in contact with the spirits haunting these places. It seems therefore evident that at any rate the souls of certain persons are changed into *mōhsek* after death. The word *mōhsek* may therefore be best translated into 'ghost'. The Indians only use it of the disembodied souls or spirits of dead men, but not of the shadow-like »double» of a living person, for which they have no particular word. Even when speaking of a recently departed person they generally simply use the expression *yāl*, *i.e.* »the dead one». *Mōhsek* particularly seems to have reference to the spirits of men who died long ago, and these spirits as a rule are more evilly disposed and more feared than the spirits of Indians recently departed.

The Choroti, like other Chaco Indians, do not deify inanimate objects of nature to the same extent as many other South American tribes. Yet

[1]) Nordenskiöld's categoric statement as to the practice of infanticide and parricide among the Choroti therefore is not correct. (»Der Mord beschränkt sich auf den Kinder- und Elternmord»; and: »Wenn ein Indianer seine alte blinde Mutter oder seinen verkrüppelten Vater tötet, so befreit er sie selbst von einem Leben das ihnen eine Last ist und sich selbst von einer Extramühe im Kampfe ums Dasein.» (*Indianerleben*, p. 38). As I have stated above, the killing of parents is limited to old men, and this custom must wholly be explained from the superstition of the Indians. Infanticide again is limited to the cases mentioned by me in a previous chapter.

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116 TEXTS--a full set of pages from each processed source, arranged in page order, as a means of establishing the context for any particular slip. Sets are arranged in the numerical order of the sources. See also:

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ETHNOGRAPHICAL RESEARCH WORK

DURING THE SWEDISH CHACO-CORDILLERA-EXPEDITION 1901-1902

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On the way to Pilcomayo. The riders, counting from the leader, are: Baron Nordenskiöld, Herr von Hofsten, Professor Fries and a Bolivian soldier. Dry forest region between Caiza and Fort Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

[p. iv]

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To

CLARENCE B. MOORE

With the Author's deeply felt gratitude

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PREFACE.

In my books, »En förgången värld» and »Bland indianer»[1] I have given an account of the origin and composition of the Chaco-Cordillera Expedition, described the vicissitudes and adventures that befell it among the mountains of the Andes and in the Gran Chaco, and published the result of the researches I carried out during my sojourn in the Andean mountain region and the Gran Chaco. The present work is an English translation of such chapters of »En förgången värld» and »Bland indianer» as deal with my ethnographical studies. I give here below a complete list of the publications representing the result of the scientific work of the expedition.

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— ZUR KENNTNIS DER PHANEROGAMENFLORA DER GRENZGEBIETE ZWISCHEN BOLIVIA UND ARGENTINIEN, 1—4. KUNGL. VET. AKADs ARKIV FÖR BOTANIK: Vols. 5—8. STOCKHOLM 1906—1908.
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[1] von Rosen, E. (1), (10).

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113 — TRAVELS ON THE BOUNDARIES OF BOLIVIA AND ARGENTINA. THE GEOGRAPHICAL JOURNAL; 1903. LONDON.
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114 The Chaco-Cordillera-Expedition set out from Sweden, in 1901, in two different parties. The first of these, which consisted of Baron Erland Nordenskiöld (the leader of the expedition, at that time a zoologist), Dr. Robert Fries, botanist, and Oscar Landberg, a taxidermist's assistant, left the home country on March 25th, arriving on May 12th at the town of Salta, in N. W. Argentina, the place that had been selected as the starting point and base of our exploration of the surrounding districts.

A Swedish-Argentinian, señor Eric Boman, who, during his stay in South America, had also occupied himself with scientific exploration and resear-

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ches, was attached to the expedition, partly as an interpreter, partly to assist in the collecting work. When, at the end of February, 1902, our expedition broke up from Tarija, in Bolivia, Boman returned to Argentina.

The second party, which consisted of Herr Gustaf von Hofsten, the author and a servant, left Sweden on August 12th and reached Salta on September 25th. Herr von Hofsten was to collect birds for the Riksmuseum, and it was to be my business to carry out archæological and ethnographical research work.

On our arrival at Salta we were met by the other members of the expedition, who a few days previously had returned with abundant collections from an exploring journey into the districts around Sierra Santa Barbara, which had proved exceedingly successful from a scientific point of view. After having completed our equipment and a sufficient number of peons had been engaged, the expedition set out for Puna de Jujuy, a desert-like plateau at an altitude of about 3,500 metres above sea level, which we reached on October 14th. Here we made our main camp at Moreno, from which place many and long exploring journeys were made; among other places to Casabindo and Morohuasi. Ruined cities, graves, and other relics of antiquity were explored and examined, and the flora and fauna studied.

During our stay in the Puna region, which lasted over two months, there were made large, scientific collections, which were despatched to Salta before we resumed our journey over the mountains to the Tarija Valley, where we arrived on January 8th, 1902. The expedition here set to work on palæontological, zoological, botanical, archæological and ethnographical research, and large collections were obtained.

We remained in the Tarija Valley until February 24th, when we broke camp and set out for the low country, particularly the immense dry-soil forest region of the Gran Chaco, where we arrived on March 13th.

Our main camp was pitched in a glade in the primeval forest, not far from Caiza in the Bolivian part of the Chaco. An excursion was made to the Pilcomayo, when the author had to swim across the river in order to get into contact with some Toba Indians who at that time had their villages on the eastern bank of the river, approximately opposite Fort Crevaux.

Whilst our expedition remained in the Gran Chaco, the Choroti, Chiriguano and Mataco were also studied, and ethnographical collections acquired

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from these tribes. At the same time, extensive and valuable zoological and botanical collections were obtained. On April 22nd we broke up from Fort Crevaux. After a toilsome horseback journey through the brambly, and in parts very poorly watered, forests along the foot of the Andes, we arrived on May 11th at Pampa Blanca (the rail-head near Jujuy), whence we continued by rail to Buenos Ayres. On June 27th, 1902, we were back in Sweden again.

EXPLANATIONS.

Objects marked »Riksm.» belong to the Ethnological Collections of the Swedish Riksmuseum. The numerals (e. g.: 03. 3. 1.) give the catalogue number of the objects. The figures within parentheses, together with the name of an author, refer to the list of literary sources given at the end of the book.

ERRATA.

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» 53,	» 3	from above.	» Caraguatá	» caraguatá.
» 56,	last line.		» Chorotis	» Choroti.
» 63,	line 12	from foot.	» »	» »
» 75,	» 10	» »	» Cactus	» cactus.
» 97,	» 16	from above.	» te	» te.
» 126,	» 17	» »	» Chorotis	» Choroti.
» 166,	» 7	» »	» surreptiously	» surreptitiously.

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CHAPTER I.

The Choroti. (I). The country and the people. Dwellings.

Situation and extent of El Gran Chaco. Some attempts at interpreting the name of Chaco. Journeys of exploration in the Chaco. Geographical discoveries. Ethnographical research among the Chorotis. The name of the tribe. Area of distribution. Physico anthropological observations. Villages. Huts and their furnishings. Cooking sheds and drying racks. Burning of villages.

El Gran Chaco (the great hunting ground) is the name given to the vast, partly forested, level country lying between the Andes and Rio Paraguay, the northern boundary of which roughly coincides with the parallel of 19 degrees of south latitude, whilst to the south it extends to about the 29th. 131

The meaning of the name of Chaco is not known with absolute certainty. Of the attempts at its translation so far made, in my opinion the most likely one is, that "chaco" (in quichua "chacu") means an assembly, or the place for an assembly, especially for the purpose of game hunting on a big scale.[1] Against this supposition the Finnish scientist, Karsten, puts forward the objection that the Gran Chaco is nowise abounding in game, and that consequently the application of the name of "hunting ground" to this region would be hardly suitable; in addition, Karsten points out that there are no certain proofs in existence that the civilization of the Incas ever extended to the Chaco.[2] To this I would reply that although, as is known, *the interior* of the Chaco is deficient in game, its outskirts towards the Andes as late as 1902 to such an extent teemed with game, birds especially, that it is only in certain parts of Africa I have seen anything to compare with it. Therefore I think it very probable 136 114

[1] Lindman (1), p. 46.
[2] Karsten (2), pp. 23 and 24.

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[136] 114 that hunting expeditions were sent out from the ancient Inca kingdom to the Chaco, among other things for the purpose of obtaining rare and valuable material for feather ornaments. If, in the time of the Incas, the reaches of the Chaco bordering on the Andes were as well supplied with game as was the case when we visited those parts — a very probable thing — the mountain-dwellers had no need to make any hazardous trips into the far interior of the Chaco. These hunters probably only knew the border reaches, and the name then found appropriate to this region has subsequently come to include the whole of the flat country around the Pilcomayo and the Bermejo. That intercourse was carried on between the mountain peoples living within the ancient Peruvian dominions, and the Chaco inhabitants during the Inca period, may with very great probability be gathered from, inter alia, Baron Erland Nordenskiöld's excellent analysis of the civilizations of two Chaco tribes.[1]

The name, Chaco, has also been translated as »the flight», i. e., the place of refuge,[2] but I do not think it very probable that the conquering peoples would have adopted a name that was only applicable from the point of view of a small number of expelled tribes.[3]

At the time of our expedition, the greater part of the Chaco was on the map shown as an unknown territory. Up till then, no white man had followed the course of the Pilcomayo from the Andes to the Paraguay. Since then, great changes have taken place on the Chaco, and our knowledge of this region has been considerably increased. The course of the Pilcomayo has been mapped, and the Bolivian government has established military outposts practically in the middle of the Chaco.

But to this day large tracts of the Chaco are entirely unknown. This may seem strange, considering that the Chaco to the west and to the east borders on regions that for centuries have been visited by Europeans, and now to a great extent brought under the sway of civilization.

That the Chaco still includes immense tracts that are only inhabited by Indians, may, no doubt, be ascribed to the circumstance that the greater part of it is little suitable for colonization. Only on the border, and along certain reaches of the Pilcomayo and the Bermejo, has it been found possible to carry on agriculture to advantage, and, with the exception

[1] Nordenskiöld (11).
[2] Karsten (2), p. 24.
[3] Cf. pp. 39 and 75.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

of the districts mentioned, the forests are not of such a nature as to lend themselves, in the near future, to profitable exploitation. Neither is there any ground for supposing that in the interior of the Chaco, where the soil in the greater part consists of loess-like strata, there is any prospect of finding any valuable minerals, or any other important products of nature. The great possibilities for cattle-ranching that exist in certain parts of this region, will, however, probably facilitate its colonization. If, contrary to expectation, gold-bearing ground, for instance, were discovered on the Chaco, even those parts of the »great hunting-ground» that are most difficult of access would, no doubt, before long be explored.

And it was precisely the thirst for gold and silver that first led white men into the Chaco. The Portuguese, Alejo Garcia, and some countrymen companions were the first whites who visited this region. About 1520 these adventurers, at the head of an army numbering some 2,000 Guarani Indians, marched right across the Chaco, from Rio Paraguay to the Andes, and invaded Peru. From the Indians of Rio Paraguay, Garcia had heard rumours of that country, and of its wealth in gold and silver, and it was covetousness of these precious metals that was the motive force in the hazardous and arduous march through the Chaco. Baron Nordenskiöld has established that this expedition was probably made some year, or years, before Pizarro's arrival in Peru, and that thus Garcia and his companions probably were the first Europeans who obtained personal knowledge of the ancient Inca kingdom.[1]

Although the Gran Chaco, as we have seen, was visited by white men at the beginning of the 16th century, it was only in the latter years of last century that any detailed and reliable information became obtainable of the more inaccessible parts of this region. The French explorer, J. Crevaux,[2] who intended to make extensive research of the country and population around the Pilcomayo, was given no opportunity of carrying out his plan, for, already at the outset of his expedition, in 1882, he was murdered by Chaco Indians, probably members of the Choroti, as well as the Toba, tribe. Another French explorer, Thouar, has described a journey across the Chaco.[3] The Norwegian, Lieutenant Storm, has published important observations from two expeditions of his on the

[1] Nordenskiöld (18), p. 46 et seq.
[2] Crevaux (1), pp. XIII—XVI.
[3] Thouar (1).

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114 Pilcomayo,[1] whilst our countryman, Professor Lindman, has supplied very valuable contribution to our knowledge of the eastern parts of the Chaco.[2] Among the more important works on the Chaco that had been published prior to our expedition, those by Lozano[3], Peña[4] and Fontana[5] should also be mentioned, as they contain geographical, meteorological, ethnological, zoological and botanical data of great interest.

At the time of our expedition, the regions including the course of the Pilcomayo through the more central parts of the Chaco were, from a scientific point of view, still to a large extent completely unknown. It was in the attempt to explore these regions that Crevaux perished, and in the interior of the Chaco the two explorers, Ibareta and Boggiani, had also been killed by Indians. The murder of Ibareta took place the year before our expedition, and Boggiani fell a victim to the Indians in the same year that we visited the Chaco. Lista, too, met his death in this region shortly before our journey; according to his companions' statement, he took his own life.

After our expedition, and apart from Baron Nordenskiöld, many other explorers, among them the Finlander, Professor Rafael Karsten, have travelled in the Chaco and carried on extensive research work.

133 As I have already mentioned, the Gran Chaco is a partly wooded plain. In the eastern or central parts of the region the ground is not known to present any marked elevations, and it is only in the portion nearest to the Andes that any appreciable hills or rises are found.

Three large rivers, the Pilcomayo (fig. 1), the Bermejo and the Salado (Juramento) flow through the Chaco from north-east to south-west. Besides these, all the year round water-bearing rivers, there are, during the latter part of the dry season, only a very few water courses, the majority of which periodically dry up for part of the year; consequently, the country is exceedingly waterless.

132 During the rainy season, which practically coincides with the summer
133 and, therefore, lasts from and including November until the end of April, the volume of water in the rivers increases rapidly, and here and there the rivers rise above their banks and flood large areas. Beds of water-

[1] Storm.
[2] Lindman (1) and (2).
[3] Lozano (1).
[4] Peña (1).
[5] Fontana (1).

courses that during a great part of the year are without a trace of moisture, in the rainy season turn into mighty rivers (as Rio Seco, fig. 2), and during this period all depressions in the ground are filled with water, so that the dry-soil forests and grass steppes of the Chaco to a large extent are under water. Vast areas then change into typical marshland, with the fauna and flora that characterize marshes.

Fig. 1. The author testing the currents of the Rio Pilcomayo, so as to calculate the course for a later swim across. On the bank, a Bolivian soldier from Fort Crevaux. Gran Chaco. Bolivia.

The climate of the Chaco is tropical. During the summer-half of the year, the heat, especially in the dry-soil forests, is extremely trying. On the open grass steppes the heat is often tempered by currents of air, but in the forests the air is usually perfectly still, and as the stunted and scantily foliaged trees, of which the dry-soil forests of the Chaco mainly consist, hardly afford any shade at all, here the heat feels exceedingly oppressive. In the winter time the heat is naturally not so trying (at nights the temperature may go down to + 10° C.), but dust storms and dearth of water are the cause of long journeys on the Chaco even during this season being often attended by considerable difficulties and discomfort.

137 The dry-soil forests of the Chaco (figs. 3, 4, 5) consist of, generally, low-growing trees and thorny shrub, the latter often forming deep, impenetrable stretches of jungle. Species of columnar cactus (figs. 5, 6) are fairly common. The bottle tree (Chorisia insignis), which is typical of South American arid regions, is fairly numerously represented, but is never found growing in actual groves (figs. 4, 7). The thorny caraguatá, or chahuar, plant (Bromelia serra) is widely distributed on the Chaco, and is in many respects of great importance to the Indians, its chief and foremost utility being that, from its fibre, excellent yarn can be spun. Of great value to the population of the Chaco are also certain trees, growing in the forest, with edible fruit, of which, perhaps, the algaroba tree (Prosopis alba) is the most important. Game, as a rule, is very scarce in the [136] dry-soil forests; even in a whole day's shooting one may fail to come across more than a few bush partridges or wood pigeons. In some parts, however, ostriches (Rhea americana) are fairly common.

The plains, or steppes (see fig. 8), are often dotted with single tress and shrubs; usually species of acacia. Here and there the fan palm (Copernicia australis) may be seen growing in groves, or even forming whole forests; figs. 9, 10; scattered specimens of this palm are also found in forests that are mainly composed of other trees, fig. 79.

136 In the rainy season, when numerous shallow pools have formed, wading
137 birds may be seen in large numbers, and those parts of the Chaco that are nearest to the Andes, are, at least part of the year, *exceedingly abundant* in wildfowl. Then waders and water birds are, naturally, especially common on and around the flooded marshes that, only during a certain portion of the year, largely form on the Chaco. These marshes mostly have a vegetation of typical marsh plants; but I have also noticed that the species of fan palm, that is common in the Chaco, thrives well enough in such *periodically* swampy ground.

Near the Andes, the forests of the Chaco are made up of tall trees with a luxuriant undergrowth and a great wealth of lianas (figs. 11, 12—14). These forests, which are of an exuberant, tropical, primeval character, abound with game, such as jaguars, pumas, tiger cats, tapirs, wild boar, water pig, deer, ant-bear, armadillos, bush partridges, toucans, parrots, and a number of other birds, suitable for food.

136 The few rivers and watercourses with which the Chaco is supplied, are

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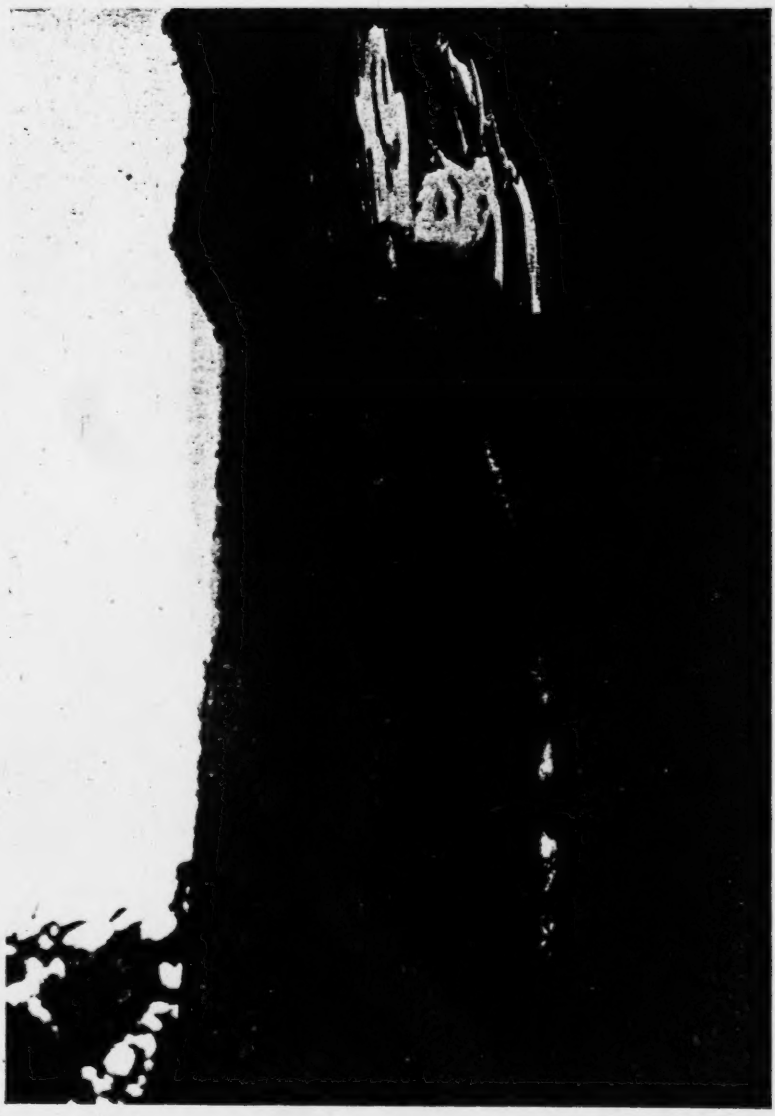

Fig. 2. Rio Seco. Gran Chaco. Argentina. Photo. E. v. R.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

136 very abundant in fish, and in their waters, as in most of the larger lagoons, alligators (Caiman sclerops) are present (fig. 15).

101 El Gran Chaco was in beginning of this century the country of the free Indians. Of the many tribes that inhabit this vast region, I have come into contact with Choroti, Chiriguano, Toba, Mataco and Tapiete, but it was only from among the first-mentioned that I had an opportunity to obtain any extensive collection.

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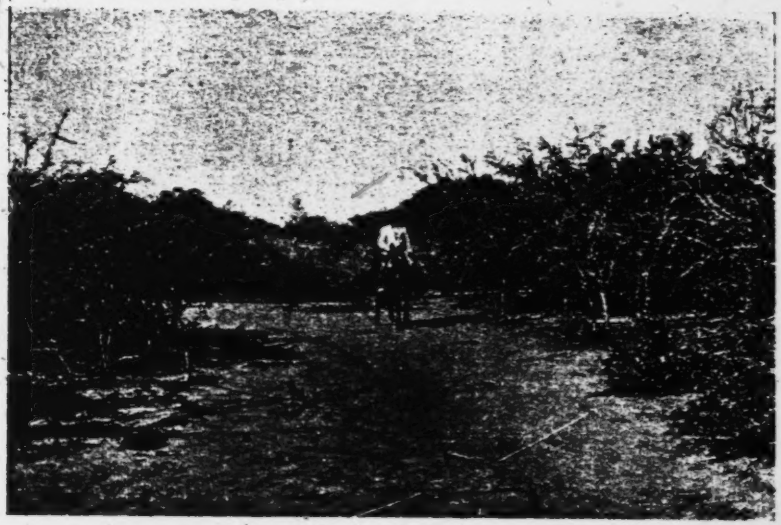

Fig. 3. Dry soil forest region. Gran Chaco. Bolivia. Photo. Rob. Fries.

101 In the literature dealing with the Chaco, there was, prior to our expe-
114 dition, not to be found much information concerning the Choroti. Their tribal name, in the form of »xolota», was, however, known already in the 18th century, when it was, probably for the first time, mentioned by Pedro Lozano, who, in a work published in 1733, enumerates a long string of names of tribes inhabiting the Chaco.[1] In his work, »Explorations dans l'Amerique du Sud», Thouar only gives a few, stray, items of information about the Choroti, he having come across that tribe on the Pilcomayo. The Choroti were, therefore, at the time of our expedition a

[1] Lozano (1).

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

101 tribe practically unknown from an ethnographical point of view, a circum-
114 stance which accounts for the interest paid to the incomplete description of the material culture of the Choroti tribe that I put before the 14th International Congress held at Stuttgart in 1904.[1] My lecture, which was also available in print, was in extenso incorporated with the report of the proceedings of the Congress,[2] and later appeared, slightly abridged, in »Anthropologie Bolivienne».[3] For reasons I have stated in the foreword of my book, En förgången värld,[4] my first description of the Choroti must nevertheless be looked upon as a work done in some haste.

114 Since the Swedish expedition of 1901—1902, various explorers have made valuable studies of the Choroti, and considerable increased our knowledge as to the physical properties, mode of life, and customs, of this tribe. The eminent anthropologist, Robert Lehmann-Nitsche, has carried out extensive anthropological measurements of a large number of individuals of this tribe,[5] and has also studied the language of these Indians.[6] Erland Nordenskiöld has made most exhaustive and exact study of the daily life of the tribe;[7] Rafael Karsten has specialized in studying dances and magic rites among the Choroti and other Chaco tribes,[8] and Hunt has made a study of their language.[9] Valuable research work with regard to Indian tribes, who from a cultural point of view are allied to the Choroti, has been done, among others, by Ducci,[10] Fric,[11] Grubb,[12] Hawtrey,[13] Herrmann,[14] Karsten,[15] Koch-Grünberg,[16] and Nordenskiöld.[17] Whilst travelling in the Chaco 1908—1909, Nordenskiöld spent a long time with the Choroti and shared their way of living, as if he had been

[1] von Rosen (3).
[2] Internationaler Amerikanisten Kongress (1), p. 649 et seq.
[3] Chervin (1), Part 1, p. 140 et seq.
[4] von Rosen (1), pp. 1—3.
[5] Lehmann-Nitsche (1).
[6] Lehmann-Nitsche (2).
[7] Nordenskiöld (11), (12), (17), (18), (19), (20), (21) and (22).
[8] Karsten (1), (2), (3), (4) and (5).
[9] Hunt (1).
[10] Ducci.
[11] Fric.
[12] Grubb.
[13] Hawtrey (1).
[14] Herrmann (1).
[15] Karsten (1), (2), (3), (4) and (5).
[16] Koch (1) and (2).
[17] Nordenskiöld (11), (12), (17), (18), (19), (20), (21) and (22).

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Fig. 4. Bottle tree. Chorisia insignis. Dry soil forest region between Caiza and Fort Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

Fig. 5. Cactus (Cereus and leaf-shaped Opuntia). Dry soil forest region between Caiza and Fort Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

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Fig. 6. Columnar cactus in the dry soil forest region. Boundary district between the Andes and Gran Chaco. Bolivia. Photo. E. v. R.

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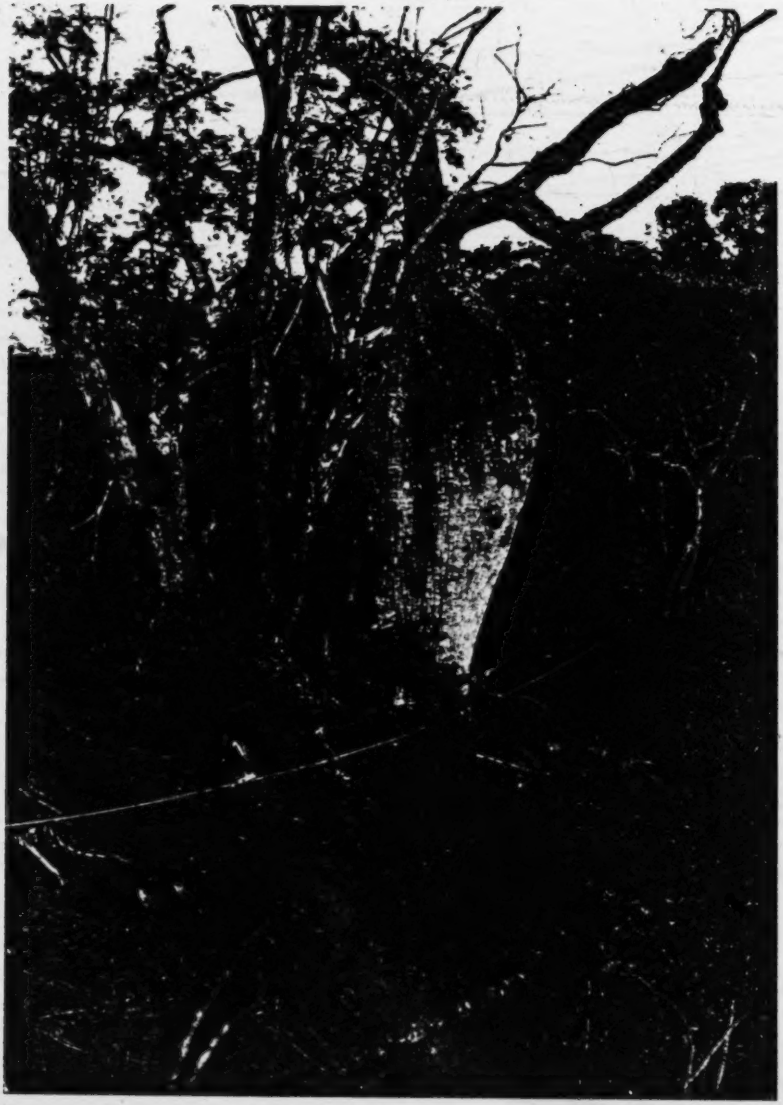

Fig. 7. Bottle Tree (Chorisia insignis). From the dry soil forest area between Caiza and Fort Crevaux, Gran Chaco. Bolivia. Photo. E. v. R.

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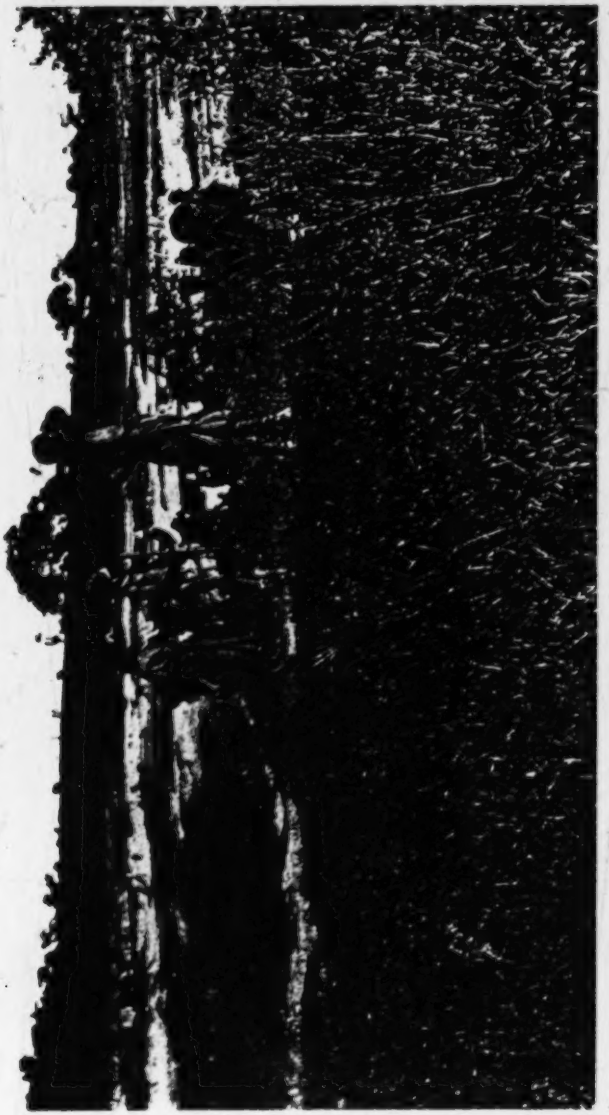

Fig. 8. Steppe with acacias. In foreground, watchful Choroti Indians. Tatarenda, Gran Chaco, Bolivia. Photo. F. v. R.

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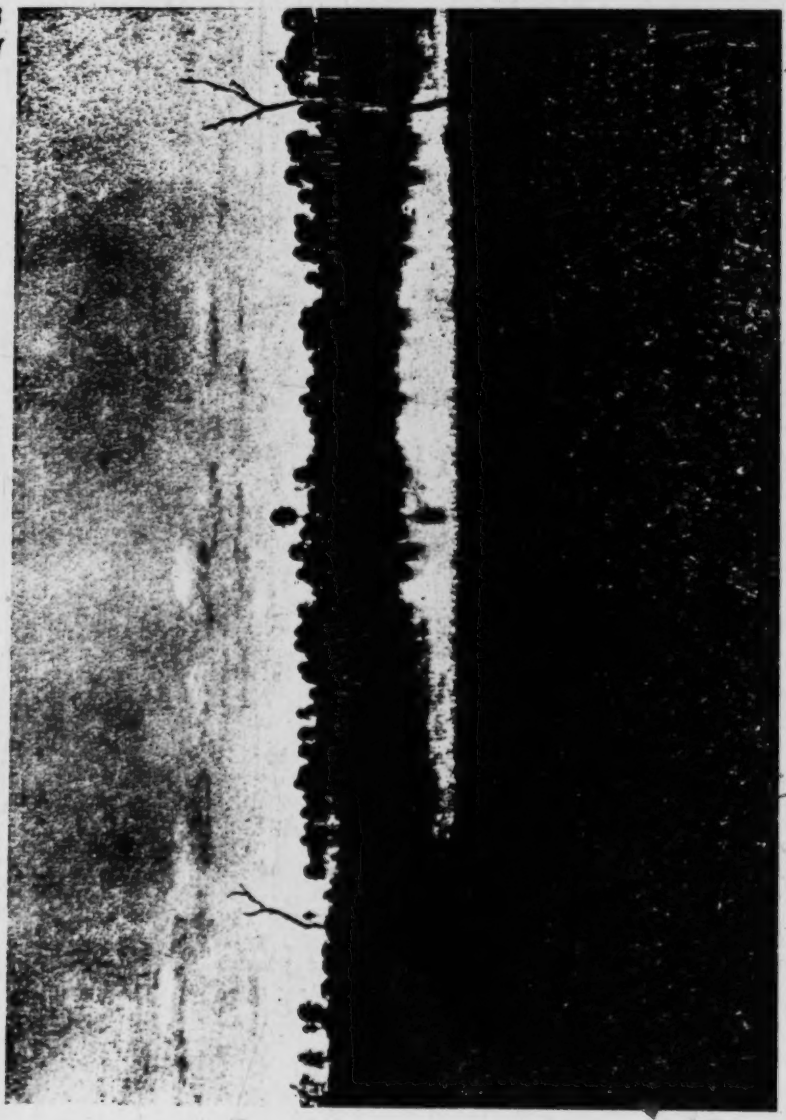

Fig. 9. Lagoon near a grove of fan-palms (Copernicia australis). Tatarenda. Gran Chaco, Bolivia. Photo. L. v. R.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Fig. 10. Grove of fan-palms (Copernicia australis). Neighbourhood of Tatarenda. Gran Chaco. Bolivia. Photo. Rob. Fries.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

114 a member of the tribe. He submitted to almost any sort of unpleasantness and discomfort in order to gain exact knowledge, not only of the daily occupations of the Indians, but also of their feasts and drinking-bouts. Nordenskiöld drank algarobo beer out of the same bowl as slavering old men, with whom he also had to take turns at smoking the same pipe. His face was spat upon, and scratched, and he was obliged to endure the bedfellowship, in his own blankets, of Indians infested with lice. When

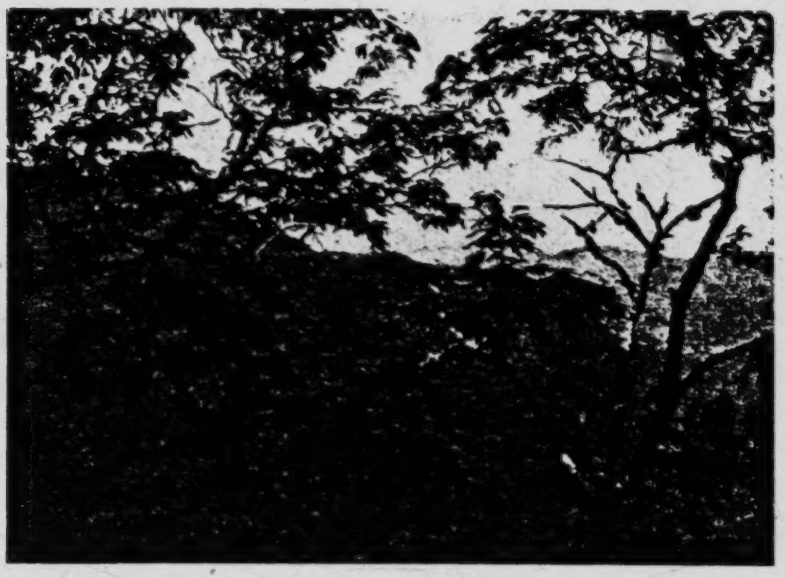

Fig. 11. View in Gran Chaco from Cuesta de Aguayrenda's eastern slopes. Bolivia. Photo. E. v. R.

he wished to be tattooed, he had to put up with a horrible hag spitting on his bleeding tattoo wounds, and her rubbing in the saliva with her fist. But there were occasions when it was a matter of life and death. Once, when Nordenskiöld and his companion, Moberg, and an interpreter, stayed the night in an Ashluslay camp, the interpreter overheard the Indians discussing a plan to take their lives, and from their talk he also gathered that Moberg's fair-haired scalp was a dangerous temptation to the redskins!

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

114 By his living like an Indian among Indians, Nordenskiöld has in an unparalleled way succeeded in enriching ethnographical science, and his research achievement is one of the most noteworthy in the history of modern South American exploration.

101 The Choroti Indians are also called Chorote, Choloti, Tsoloti, Soloti and Solote. The final »s» added to these tribal names comes from the Spanish plural form, and has therefore in later works rightly been left out. The name they call themselves by is »yófuaha», or »yóshuaha», which probably means »pigeon people». If so, the pigeon would be the totem animal of the Choroti.

After the publishing of the valuable research, made by Hunt, of the [127] Choroti language, it has become necessary to class this tribe with the Mataco group, although the material culture of the Choroti in many respects shows an equally close kinship with the civilization of certain Guaycurú and Mascoi tribes, such as the Toba and the Lengua. That the Choroti have had their abode in the Chaco ever since the Inca period is highly [114] probable, because, as already mentioned, their material culture in a very obvious degree points to a strong influence from the ancient mountain civilization to the west.

101 The section of the Choroti tribe among whom I pursued my study, 131 was at the time of our expedition located in the neighbourhood of Caiza (see map). Some of the Choroti I met in this district had, however, their chief place of resort on the Pilcomayo, and thither they intended to return after a visit to the sugar plantations in northern Argentina. As I have [106] been informed, my red friends from the Caiza region at some later time did something or other to the annoyance of the settlers of the district, whereupon they moved further into the Chaco, and have since that time probably never again come into contact with whites. According to Nordenskiöld, other Choroti have, however, immigrated into the country about Caiza. The main part of the Choroti tribe inhabits the region immediately to the east of the Pilcomayo, and roughly between 21° 45' and 22° 45' of south latitude.

Our main camp, Tatarenda, was situate a few leagues south-west of Caiza, and the Choroti of whom I made a study were located one league south-west of the camp.

000 Of the Choroti among whom I carried out my investigations, the men

[text continues on p. 31]

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Fig. 12. Primeval forest in the district south of Tartagal, Gran Chaco, Argentina. Photo, E. v. R.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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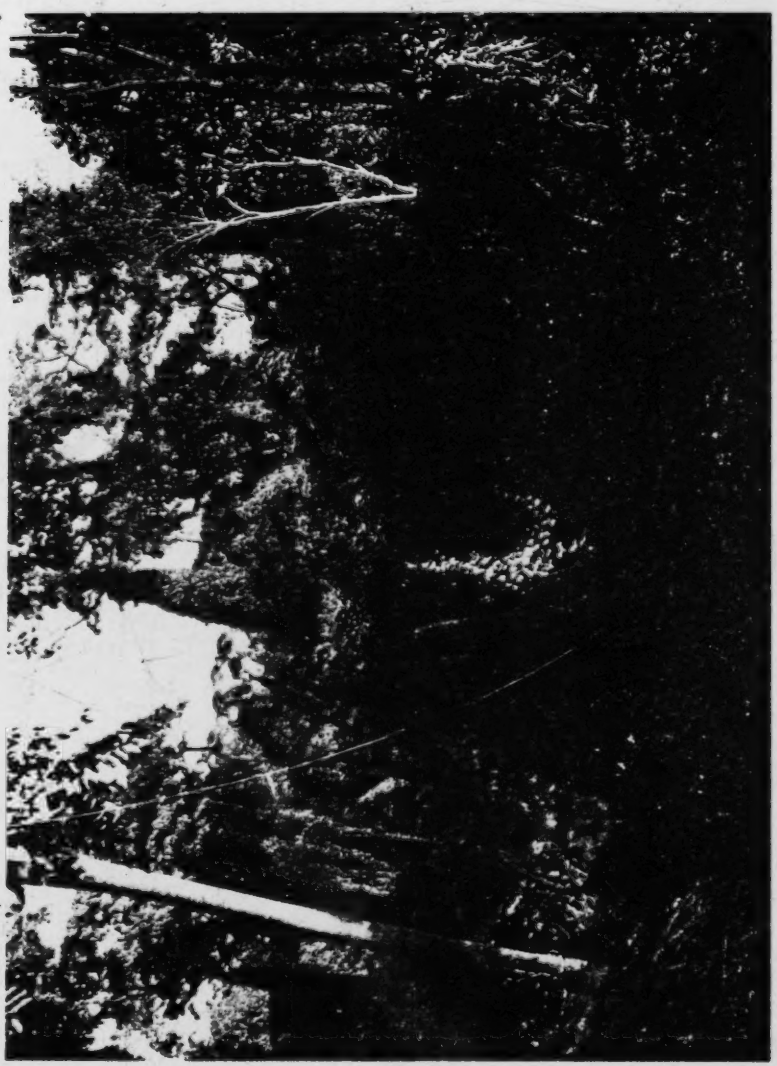

Fig. 13. Primeval forest covered with lianas. To the left, in foreground, these form a net over a young, growing tree; in the background there is visible a forest-giant, the trunk of which is perfectly hidden beneath a cone-shaped, compact covering of interwoven creepers. Primeval forest tract, south of Tartagal, Gran Chaco, Argentina. Photo. E. v. R.

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Fig. 14. Primeval forest, with trees completely covered with, and killed by, lianas. District south of Tartagal. Gran Chaco. Argentina. Photo. E. v. R.

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142 Of the Choroti among whom I carried out my investigations, the men

appeared to be fairly tall of stature,[1] figs. 16—19, 30, whilst the height of the women was remarkably small, figs. 19—22, 30. I took height measurements of ten men and thirteen women, but as the table got lost during the expedition, I am not able to give the maximum and minimum measurements. But I have the computed average heights preserved in my diary, and they are 170 cm for the men, and 152 cm for the women. The height measurements at a later date made of Choroti (who had come to look for work at sugar plantations in Argentina) by Lehmann-Nitsche show an average height of 161.6 for men (aver. of 20 individuals), and for women 155.3 (10 individuals). That Lehmann-Nitsche and I arrived at such appreciably divergent results is because our measurements were taken of so small a number of people. [136] Lehmann-Nitsche having, however, measured twice as many males as I, it may be presumed that the average height obtained by him more nearly approaches the true average for the men of the tribe than does the result obtained through my measurements.

Fig. 15. Spectacle-cayman (Caiman sclerops). Camp at Tatarenda. Gran Chaco. Bolivia. Photo. E. v. R.

[304] The shape of the skull is predominantly dolichocephalic, and shows no traces of artificial deformation.[2] The men, as well as the women, are, as a rule, strongly and proportionately built, although in some individuals the breast is flat and the belly rather big (figs. 17, 37), the latter no doubt [262 146] resulting from the fact that the Choroti largely subsist on roots and fruits, a kind of diet usually producing distension of the stomach. As an example, in the rural districts of Europe it is no rare thing to come across persons, especially children, who, from a too-protracted diet of potatoes, have developed a distended stomach, a so-called »potato belly».

[1] That also among the Indians of the eastern part of the Chaco tall individuals are found, is evident from the following statement by Professor Carl Lindman: »Those Indians whom I saw along the Paraguay, opposite Asuncion and northwards, were to a large extent muscular and well-built, some, even, were very tall of body and athletic looking.» Lindman (1), p. 72.

[2] These items of information have been supplied me by Professor Gustav Retzius, who has examined the Choroti skulls brought home by our expedition.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

142 The skin colour in adult Choroti is brown, newly born children have light yellowish-brown skin, but it soon gets darker, so that even rather young children, figs. 21 and 22, seem to be of a very dark colour. The hair is lank, and the iris dark brown. From Lehmann-Nitsche's and my own anthropological observations I have compiled the following table.

[141] *The Choroti: some physical peculiarities.*

Sex	Average height, cm	Shape of skull	Skin colour, von Luschan's scale	Hair colour, Fischer's scale	Iris, Martin's scale
Men.....	[1] 161.6 [2] 170.0	Dolichocephalic, predominantly	22, predominantly	4, predominantly	4, predominantly
Women ...	[3] 155.3 [4] 152.0	Dolichocephalic, predominantly	18, predominantly	4, predominantly	4, predominantly

145 As the Choroti do not keep count of the age of their children, nor [805] of their own, it is impossible to obtain, by direct questioning, from these Indians any information as to the relation of puberty to age in individuals. One of our Creole servants, who had lived a long time on the Chaco, has, however, told me that Indian children arrive early at physical [582] development (fig. 24), and that the girls are considered marriageable after their first menstruation, which, according to my informant, occurs at the age of ten to twelve. And, according to the same person's statement, the boys are ripe for marrying at the age of about fifteen. The blossoming-time of the women is very brief, and as they grow old they often become repulsively ugly. It is notable that the old women, as a rule, were thin of body, whilst elderly men often were inclined to stoutness.

[621] 361 The Choroti live together in villages. The selection of the village site depends primarily on the supply of water and food, and, in the case of cattle-owning Indians, also on grazing conditions. Often the huts are built alongside shade-giving trees ((fig. 25)) The fan palm found in the [824] Chaco (Copernicia australis), (fig. 10,) being valuable to the Indians on account of its easily worked wood, its pith (used for food), and its leaves

[1] Acc. to Lehmann-Nitsche's measurements of 30 individuals.
[2] » » the Author's » » 10 »
[3] » » Lehmann-Nitsche's » » 10 »
[4] » » the Author's » » 13 »

[text continues on p. 37]

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Fig. 16. A man, in front of his hut. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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Fig. 17. A man, with frontlet of birdskin. Choroti. Tatarenda camp. Gran Chaco. Bolivia. Photo. E. v. R.

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361 (material for roofing huts), the Indians are apt to build their villages in
824 the proximity of some grove, or forest, of palms (›palmar‹). As a case in instance, the Choroti village at Tatarenda was situated quite close to a palm grove, and not very far from a largish palm forest. It is of im-
[262] portance that algaroba trees should be growing in the neighbourhood, as the fruit of this tree plays a prominent part in the food arrangements of these Indians.

342 The huts are of a very primitive character, and are built in the following manner; With a digging-stick (fig. 27) of hard, heavy wood, a succession of
[142 holes is dug, or jabbed, in the ground, so as to
291 form a circle with a diameter of 2 metres or upwards.
301 In each of these holes is planted an unlopped, bent-
412] grown branch, thick end downwards, so that the tips of the branch point towards the centre of the circle. By this means a cupola-shaped frame is formed (fig. 26). This frame is covered with a thick layer of palm leaves and grass (figs. 16, 25), unless palm leaves are difficult to obtain, when the hut will be covered with grass only, although huts thatched in this way have less rain resistance. But even the most carefully built Choroti huts are, however, poor enough dwellings which, in any heavy downpour of rain, are unable to keep those inside them from a wetting.

Fig. 18. A man holding a pestle in his hands. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

The huts have one, or even two, entrances, about one metre in height (figs. 16, 25), but huts of the largest size are sometimes provided with several entrances. A sort of porch, constructed of branches and grass, may occasionally be built out from the entrance. When several huts are close together, they may not unfrequently be connected with each other by means of covered passages, or tunnels, built similarly to the huts.

352 The latter do not contain many utensils. Ranged along the wall, bowls
415 made of gourd shell, a few clay vessels and a wooden mortar, are gene-
824 rally seen. In prettily knitted net bags of spun caraguatá fibre,[1] the Choroti keep all manner of small articles, such as mussel-shell spoons,

[1] Caraguatá, or chahuar (chaguar), Bromelia serra, is, as I have already pointed out, especially common in the Chaco.

wooden sticks for fire-drilling, toilet articles, magic rattles, etc.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

352 [513] wooden sticks for fire-drilling, toilet articles, magic rattles etc. Contrary to the Chiriguano, the Choroti do not use bedsteads or hammocks, but sleep on the ground, with only an animal skin, or a woollen mantle between themselves and the ground.

[142 291]

Fig. 19. A man, with his daughters. Choroti. From the dry soil forest region between Caiza and Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

343 251 At the cooking-fires in front of the huts, the Choroti now and then erect square sheds, with flat, grass-covered roofs. These sheds are constructed like food-storing racks (fig. 28), and are used both as a protection from the sun and as sleeping places during hot nights. According to Nordenskiöld, the Indians on the Pilcomayo use the roofs of these sheds for drying fish on.[1] I am of opinion that these sheds, originally, were only designed for the storing, drying, smoking or roasting of fish, and that, therefore, their use as shade-givers or sleeping-shelters is only

[1] Nordenskiöld (13), p. 36.

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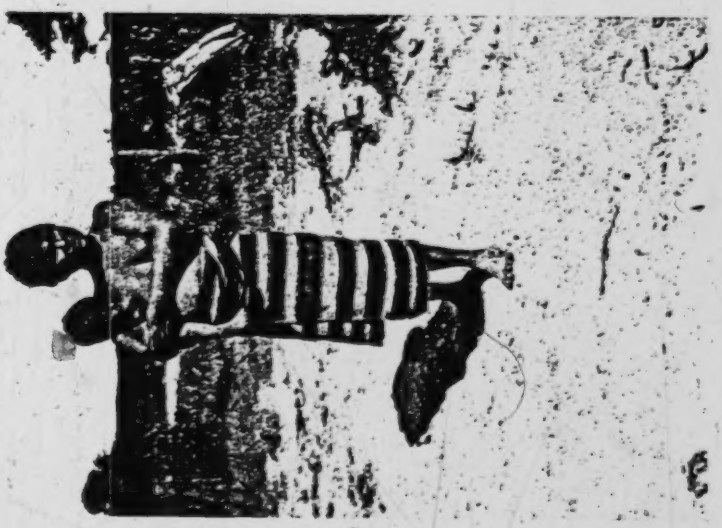

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Fig. 21. A young woman suckling her baby. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

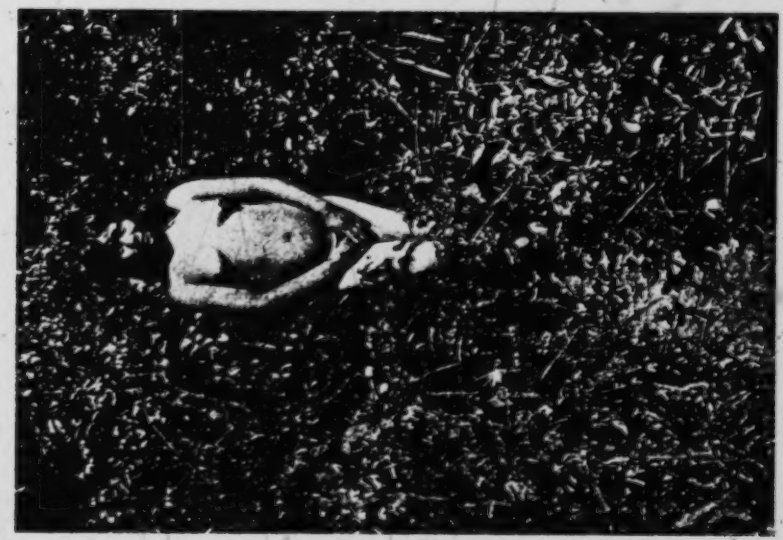

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Fig. 20. A girl. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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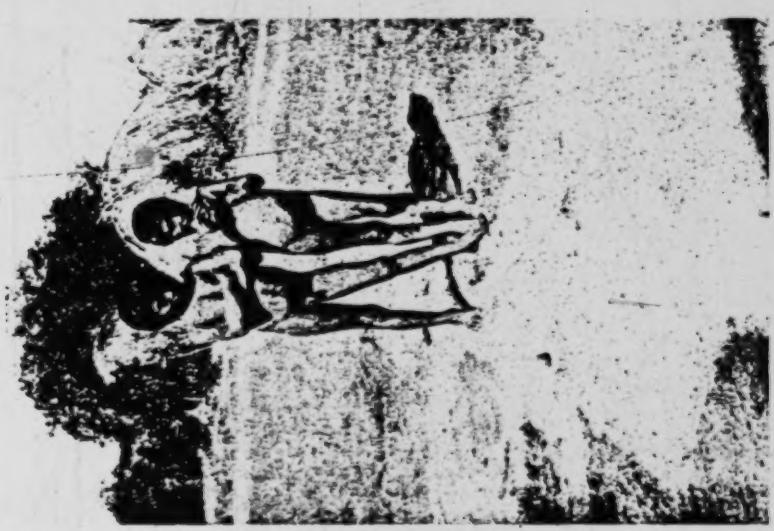

Fig. 23. A boy and a girl (probably about 7 and 8 years old). Gran Chaco. Bolivia. Photo. E. v. R.

[Fig. "OR": -Analyst]

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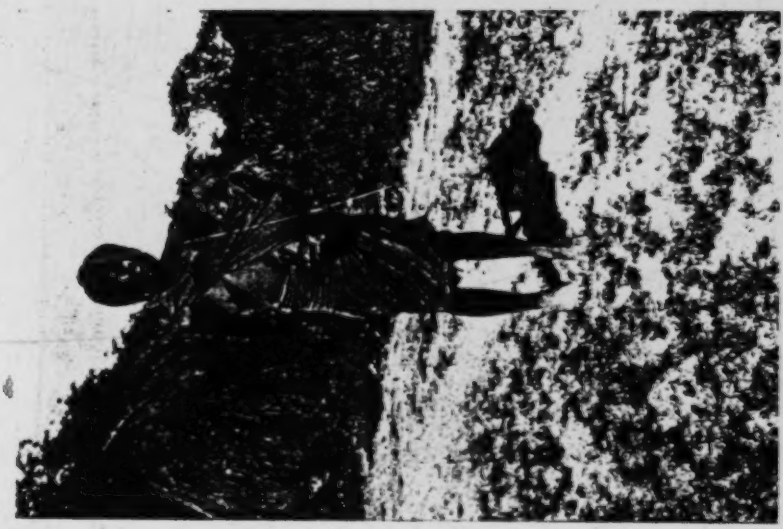

Fig. 22. A woman, with infant. Note that the woman's ear-lobes are pierced, but that she is wearing no ear-lobe discs. Choroti, Gran Chaco, Bolivia, Photo. E. v. R.

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Fig. 24. A boy and a girl (age probably about 10). The boy is wearing a frontlet and armlets, made from palm leaves. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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Fig. 25. Huts. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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Fig. 26. Hut frames made of tree branches. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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Fig. 27. Wooden digging-stick (wood of Bulnesia sarmienti). The handle and the spade-like point are flat, the rest, of round section. Choroti, Gran Chaco, Bolivia. 1/6. Riksm. no. 3 84.

a secondary one.[1] In Central Africa I have seen Wemba and Bisa men construct food-storing racks for smoking food, or drying it by fire. These racks are built on exactly the same plan as the cooking-sheds of the Choroti, although lower than the latter, and not covered with grass. That also the Indians of South America made use of drying or roasting racks, is evident from fig. 29, provided that this picture, reproduced from an account of travel in the 16th century,[2] actually is a faithful representation of an Indian roasting-rack.

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The roasting-rack, such as it is reproduced above, may conceivably be a development of the food-storing rack discussed by me in chapter VII (pp. 198, 199), and in the following way: Those usually fairly tall racks that are built for the protection of food against damage from wild or domestic animals, are, as a rule, particularly well adapted for drying fish, etc. When the weather is unfavourable to sun-drying, the idea would present itself of assisting the preserving process by making a fire under the rack, by means of which the food would dry more quickly, at the same time that, through the action of the smoke, it would keep longer from decomposition. By lessening the height of the rack, in the way shown in fig. 29, the effect of the fire would be increased so much that the food would quickly be cooked, and ready for immediate consumption.

Fig. 28. Frame of cooking shed; also used as a food rack. Choroti, Gran Chaco, Bolivia. From Erland Nordenskiöld.

When the Choroti quit a dwelling site in order to build their village elsewhere, they often burn their old

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[1] Cfr. my theory as to the origin of pile-building construction, pp. 193—199.

[2] Schmidel (1), p. 39.

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361 huts. With other Chaco tribes the same custom prevails. Thus, for instance, the Mataco Indians burnt their huts on the Pilcomayo when they had learnt from spies that I, with a few Bolivian soldiers, was marching in a direction towards their village. When I arrived at the site of the village, I found, instead of huts, only a number of smoking ash heaps. In times of epidemics, when there are many deaths, it is the Indian custom to burn, and abandon, their villages. It also happens that a village is burnt after having for the first time been visited by a white man.[1]

[1] Karsten (2), p. 30.

000

Fig. 39. Tiembus Indians, roasting fish on the Paraná river. From Schmidel.

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Fig. 30. Men and women. Back row (8 individuals): men and youths. Front row (4 individuals): women. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

CHAPTER II.

The Choroti (2). Dress and ornaments.

Men's dress. Garments of protection against arrows, fish-bites and thorny plants. Hair-dressing. Frontlets. Hair-nets. Head ornaments of feathers, etc. Ear-lobe discs. The ear-boring custom. Necklaces. Armlets. Anklets. Finger rings. Dress and ornaments of the women. Tattooing. Painting of the face. Cutting the hair short. Pulling out of hairs. Toilet articles and their receptacles. Lack of cleanliness. Phthiriophagy.

291 On account of the warm climate of the Chaco, the Choroti do not require much in the way of dress. The smaller children are always completely naked (fig. 23), and when the men are engaged in any harder kind of work, they then usually only wear a woollen apron, passed between the legs and fastened in front and behind to a string made of caraguatá fibre or wool, tied round the waist (figs. 16, 18 and 30). Occasionally they fasten pieces of cloth, of different sizes, round the waist without tucking them between the legs (fig. 30). I have also seen Choroti men wearing broad, fringed, leather belts (fig. 31), but these skirt-like garments seemed to be of rather rare

[p. 49]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

291 occurrence. I was, however, told that, in olden days they were in general
[71] use among the men. Fringed leather belts of the same kind as the one here shown, are still common among the Lengua in the eastern Chaco.[1] Belts and girdles are fastened round the waist by means of a thin leather strap, passed through, and tied to, two holes at one end of the belt. The two free ends of the strap are threaded through two corresponding holes in the other end of the belt (see fig. 31); are tightened up as required, and tied. In the same way the Choroti fasten their fringe-less leather belts (fig. 171), which are usually made of white oxhide, and serve to secure mantles and skirts round the waist (see fig. 30: the man farthest to the left). The Choroti also wear broad, fringe-less belts of oxhide as a protection for the stomach from arrow shots.[2]

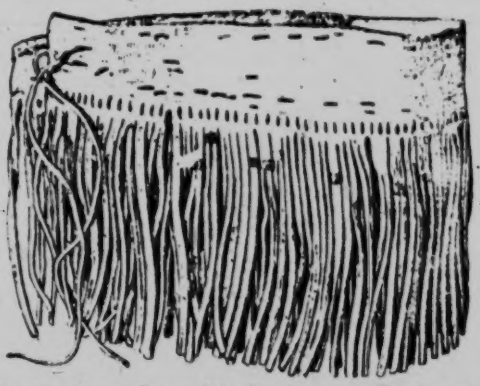

Fig. 314. Fringed leather belt. Mountings of tinplate decorating some of the fringes. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 8.

Very common garments are large woollen mantles, which the men either wrap round the waist (figs. 17, 30, the two men on either flank), or drape over the shoulders (fig.
[231] 32). The Choroti women weave these mantles of the wool from the
286 flocks of sheep that the tribe owns in the interior of the Chaco. The
291 mantles are usually in two colours, and woven with groups of stripes. I have reproduced, in fig. 33, a corner of a Choroti man's mantle, the size of the mantle being 204 by 183 cm. The fabric, so-called rep, consists of two-thread, tightly spun yarn of a greyish white (the natural colour of the wool) and reddish brown; the warp is rounded, so that the weaving is selvedged all round. The woof is red. The ground colour of the mantle is brownish red, and there are six groups of greyish white stripes running with the length of the mantle. Each group of stripes consists of one broad, greyish white stripe, with two thinner stripes of

[1] Grubb (1).

[2] Cf. Nordenskiöld (13), plate 13.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

286 291 the same colour on either side. Beside these six groups of stripes, there is a thin, greyish white stripe running along each of the longer edges of the mantle. The garment is woven in one piece. In the centre of the

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Fig. 32. Choroti Indians. Gran Chaco. Bolivia. Photo. E. v. R.

mantle there are figures sewn with reddish brown, woollen-yarn (fig. 34), probably property marks.[1]

291 When engaged in work or pastimes, the Choroti men usually take off their mantles. In »our» Choroti village we therefore always saw a large proportion of the men going about practically naked (figs. 16, 18 and 171).

[1] Cf. Nordenskiöld (13), p. 32.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

286 Among the Choroti, I have only seen a very few individuals wearing
291 the poncho, and the only specimen of this garment I succeeded in obtaining belonged to a half-grown youth. This poncho (fig. 35) consists of a woollen fabric, 160 cm long and 61 cm broad, in the middle of which there is a slit, 26.5 cm in length. The weaving consists of two-threaded, tightly spun yarn of greyish white (the natural colour of the wool) and red (now faded). Its ornamental design is formed by three broad, decorated strips, woven on double warp, so that on one side the pattern shows greyish white on red ground, and on the other side red, on greyish white ground. The fabric between these strips is rep, with the woof of greyish white yarn. Whether this poncho is of Choroti weaving, one cannot be certain. Possibly it has been obtained by Choroti from their Ashluslay neighbours, seeing that similar garments are not uncommon among the latter.[1]

[531]

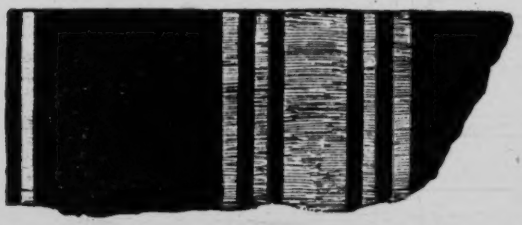

Fig. 33. Corner of man's mantle which is 204 cm long and 185 cm wide, of brownish-red wool, woven with groups of greyish-yellow stripes. Gran Chaco. Bolivia. 1/4. Riksm. 03. 3. 1.

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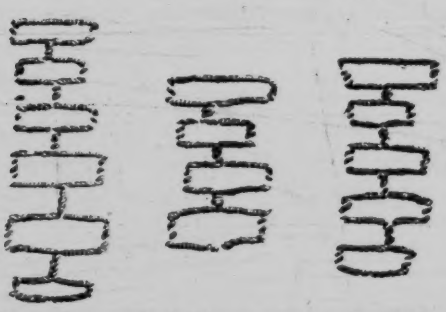

Fig. 34. Ornaments (probably property marks), placed in the middle of the mantle, a detail of which is seen in fig. 33. 1/2.

In the huts of the Choroti
292 I frequently came across a kind of thick shirts, knitted from tightly spun
714 caraguatá-fibre threads (fig. 36), but I never saw them in use. In reply to my questions as to the reason for this, I was told that these garments are chiefly worn in fighting, when they are used as a protection against
[171] arrows. Caraguatá shirts are also used by the Ashluslay and the Mataco,[2] but in the literature on those Indians I have found no reference as to their being used as a protection against arrows. The Chiriguano, however,

[1] Nordenskiöld (11), pp. 111 and 112.
[2] Nordenskiöld (11), p. 107.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

as well as the Chaco tribes of the Guaikurú group, like the Choroti, wear these garments as war shirts.[1] In all the tribes just referred to (and the Ashluslay and Mataco as well), such shirts are worn exclusively by the men. The Caraguatá shirt here reproduced is knitted very tightly and closely (fig. 37), and, although its length is only 56 cm, exclusive of the shoulder straps, it weighs as much as 1.4 kg. The stripes that are worked in by way of ornamentation, have been formed by using string dyed black, and string dyed brown, alternately, in knitting. The parts that are between the stripes consist of undyed fibre. At the bottom edge of the shirt, small pieces of red and yellowish brown cloth have been tacked on; these originate from the whites.

Fig. 35. Child's poncho (a boy's) of wool, with woven ornaments. Ground colour brownish-red; ornament yellowish-grey. Choroti (probably manufactured among some other tribe). Gran Chaco. Bolivia. 1/4. Riksm. 03. 3. 4.

These mail shirts of caraguatá-fibre string are exceedingly well manufactured, and undoubtedly form a good protection against the Chaco Indians' arrows, which are usually wooden-pointed. Arrows with rod-shaped, iron wire points, or with leaf-like, edged, iron heads, on the other hand, would probably pierce even the thickest and most closely knitted caraguatá shirt. The shoulder straps in these mail shirts are knitted considerably thinner and less closely than the rest of the shirt, and this is only natural, as the function of the straps is to suspend the shirt, and not to give protection against arrows. Besides, they could only be hit by arrows dipping at an angle from above.

[1] Krickeberg (1), p. 131.

[G should be lower case. —Analyst]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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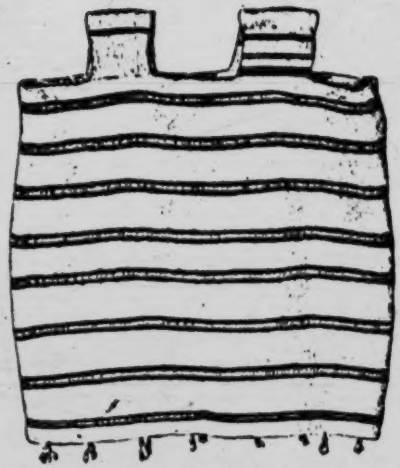

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Fig. 36. Mail shirt, knitted of caraguatá string. Worn principally as a protection against arrows. Choroti. Gran Chaco, Bolivia. 1/5. Riksm. 03. 3. 389.

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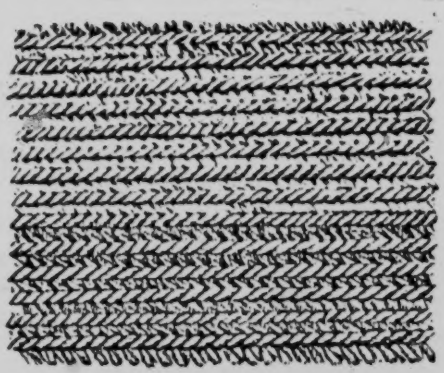

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Fig. 37. Enlarged detail of mail shirt, fig. 36. Natural size.

It is worthy of note that the Choroti also manufacture another protective garment out of caraguatá, namely a sort of stockings. This footgear is put on for wading (in fishing), as a protection against the teeth of the terribly sharp-biting palometa fish.[1]

To protect the legs from spiny plants, I have seen Choroti using a kind of long deerskin leggings, laced on with leather straps. The legging here reproduced in fig. 38, which has a height of 71 cm, reached well above the knee of its wearer. Some of the Choroti make use of sandals,[2] but I have myself never seen them worn by these Indians.

The men generally wear their hair of a medium length i. e., down to the shoulders, or the shoulder blades (figs. 16—18, 39 and 83) — but I have also seen Choroti with hair so long as almost to reach the waist. The hair is usually tied round with a woollen frontlet (fig. 39), or a frontlet of palm leaves (fig. 24), or birdskin (fig. 17), but it may also be worn loosely hanging down (fig. 53). Frequently the hair is tied into a brush-like bunch at the nape of the neck (fig. 39). Woollen frontlets are generally furnished with simple, tasteful, ornamentation (figs. 39

[1] Nordenskiöld (13), p. 110.
[2] Nordenskiöld (11), pp. 113, 114.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

and 40). Miss Agnes Branting, who has kindly examined the textiles here reproduced, found the frontlet in fig. 40 especially interesting, as similar fillets are woven by the peasantry in very many provinces of Sweden, for instance Scania, Halland, Wermland and Helsingland. Miss Branting writes on this matter as follows: »Fillets of this kind are made without any other implement than just any sort of object to which the yarn can be attached, say a weighted pincushion held on the knee. The weaving is begun from the centre of the fillet by crossing one yarn over another; for each turn a yarn is added (from a number fastened with pins) on either side. When the edge yarn has been reached, this is turned inwards, and the plaiting then proceeds from the edges towards the centre. This gives a certain firmness and compactness to the edges, and makes the middle portion slightly thinner, as may be noticed if looked at against the light.»[1]

Fig. 38. Legging, of deer-skin with yellowish-brown hair-covering remaining. Worn for protection against thorny plants. Choroti, Gran Chaco, Bolivia. 1/6. Riksm. 03. 3. 383.

Sometimes the frontlets are decorated with snail-shell spangles, sewn on, although such pieces of magnificence as the frontlet here shown in fig. 41 are very rare. From fig. 42 can be seen the way this frontlet is meant to be worn. These very decorative snail shell spangles are made from the shells of a large, white land snail (Borus oblongus, fig. 43), common in the Chaco. The Choroti do not themselves make these snail-shell spangles, but obtain them through barter from other tribes.

Narrow frontlets of woollen-yarn (see fig. 30: the 3rd and 4th men from the left) or birdskin (see figs. 17 and 30: the boy who is fifth from the left) are of very common occurrence; less frequently seen are frontlets made from palm leaves, some of which are provided with chin straps, so as not to slip easily off the head (fig. 44).

At dances and other festive occasions, the men are fond of wearing particularly handsome, broad frontlets or head ornaments of stiff or downy

[1] Compare with this a method of hand weaving described from the Choroti by Erland Nordenskiöld. Nordenskiöld (13), p. 111.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

292 feathers, tied inside a woven or plaited fillet, usually no more than a
302 centimetre wide, of coarse caraguatá, or woollen-yarn (fig. 45).

And it is also principally at dances that the men of the Choroti wear a sort of knitted skullcaps of woollen-yarn, net-like, and with a chin-strap.

[142 301 304 322]

Fig. 39. A man with a woven frontlet of wool (greyish-white and brownish-black), and ear-lobe discs of wood. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[531] These hair-nets are often studded with snail-shell spangles (fig. 46), or the chin straps decorated with down (fig. 47). With the magic character of these and other ornaments from the Chorotis, I shall deal in a later chapter.

[should be Choroti — analyst]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

To the frontlets are affixed one or more feathers (figs. 32, 16—18, 24, 30 and others). These are obtained from many different birds, ranging from ostrich and white heron to domestic fowls. The feathers are often nicked,

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Fig. 40. Frontlet, of wool, with angular ornament in brownish-black and greyish-white. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 9.

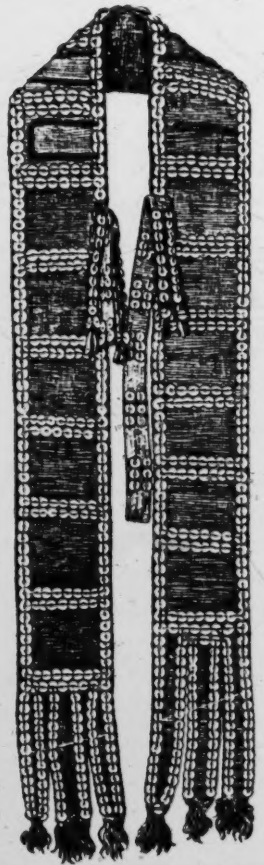

Fig. 41. Head ornament, consisting of a red, woollen, frontlet, 7 cm wide, with snail-shell spangles sewn on, and, in front, beset with turquoise-blue glass beads. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 10. 3. 134.

[531]

Fig. 42. A Lengua Indian with head ornament, »scalp lock» and whistle (the latter hanging round the neck on a string). From Hawtrey.[1]

[825]

Fig. 43. Borus oblongus, a white land snail, common in the Chaco. From its shell the Indians make small spangles, with which they adorn themselves. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 47.

[1] Hawtrey (1), p. 282, fig. 2.

1: Rosen E-5 (1901-1902) 1924 SK6 Chorotí SK6

237 and tied with woollen-yarn on to a small stick or cane splinter (fig. 48),
292 for sticking into the fillet of the frontlet. The Indians take very great
302 care of their feather ornaments, and the easily damaged ostrich plumes
[415] (see front-page plate and fig. 49) are kept encased in bamboo. The plume-case reproduced in fig. 50 consists of a piece of bamboo, 50 cm long and 2.5 cm wide. At the upper joint there is a hole, 3.2 cm long and 1.2 cm wide, through which the partition wall has been removed. The bamboo chip cut out in making the hole near the bottom end, is tied over the hole with a thin strip of bast; whereas the upper hole is without such a lid. The lower hole differs from the upper, in that its edges, as well as the edges of the lid, are painted red. I presume that neither of these holes has been made exclusively for the purpose of facilitating the removal of the wall within the joints, but that they have also served to make easier the taking out of the feathers from the case. The painting red of the holes and lid edges has, as I shall show further on, probably been done with magic intent, for the safeguarding of the plumes.

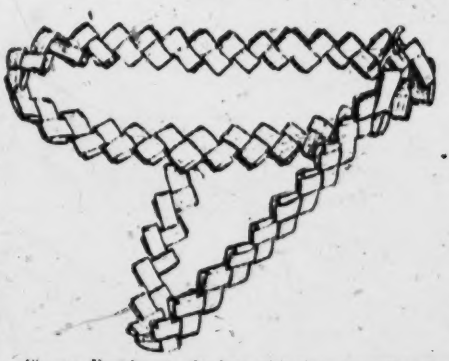

Fig. 44. Frontlet of palm leaf, with chin strap. Chorotí. Gran Chaco. Bolivia. 1/3. Rik-m. 03. 3. 14.

Fig. 45. »Siate» frontlet, made of white and pink feathers and down from the pink spoonbill. Chorotí. Gran Chaco. Bolivia. 1/3. Rik-m. 03. 3. 15.

The curious object seen in fig. 51 is, it has been stated, meant to be used as an ornament at dances; it is made out of the leaf of a fan palm (Copernicia australis). It seems to me,

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

however, that this object, on account of its weight and shape, would be rather unsuitable for a head ornament. At an attempt at fixing this bunch in a band tied round my forehead, the cluster overbalanced at the very first sharp movement. With some Indians (e. g., the Pueblo Indians of New Mexico) it is the custom at certain dances to hold branches in the hands,[1] and the Mataco, on occasions, dance round two men who are each holding a bunch of sugar cane, resting it on the ground. In this

Fig. 46. Hair net, with chin strap of red, woollen yarn. The technique in the knitting work resembles what is known as macramé lace. Hair-net as well as chin strap decorated with small shell spangles. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 10. 3. 15.

Fig. 47. Hair net of red woollen yarn. Knitting technique resembling that of macramé. In the chin strap, which consists of grey woollen yarn, small downy feathers are worked in. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 5.

latter case the dance in performed in order to hasten the ripening of the sugar cane.[2] The fan palm being of great importance in the food-getting of the Choroti, it is not inconceivable that the palm-leaf bunch here mentioned has been used at some magic dance, held with a view to obtaining an increased supply of palms. That palms are sacred trees, is a universal idea with the Indians,[3] a fact that enhances the possibility of this cluster having had some magical purpose. It may perhaps appear strange that I did not, without further ado, accept the statement of the

[1] Densmore (1), plates facing pp. 117 and 119.
[2] Karsten (1), p. 80.
[3] Karsten (4), p. 186.

5*. — v. *Rosen*. II.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

cluster being merely a head ornament, but the Chaco Indians often give information that is purposely incorrect, and hence one cannot always rely upon their explanations.[1] A quaint head ornament, met with among the Choroti, consists of a cross, about 1 dm high, constructed of feathers, thread, and a wooden stick. These crosses, worn stuck into the frontlet, are very similar to a kind of ornaments, probably symbolic or magic, that are occasionally found together with ancient Peruvian mummies.[2]

Fig. 48. Ornament of white feathers, meant for fixing in a frontlet. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 86.

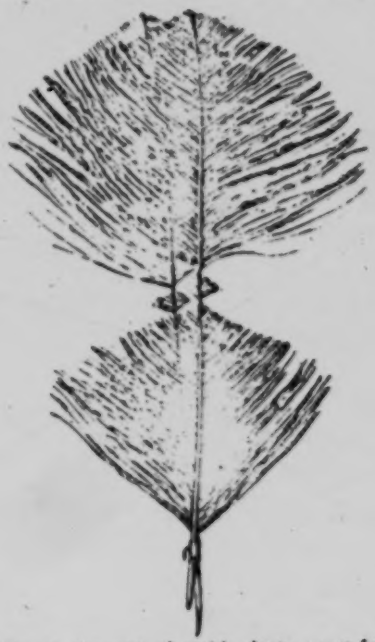

Fig. 49. Ornament of ostrich plumes, meant for fixing in a frontlet. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 90.

Occasionally the Choroti, and also other Chaco Indians, gather a lock of their front hair into a tuft, tying it round with yarn or narrow woollen tape, so as to make it look like a brush, or broom. Sometimes they make a similar little brush from false hair, and wear it pushed in under the frontlet, over the forehead, so that it points downwards. The false-hair brush here depicted (fig. 52) possessed special value to the Choroti

[1] As to the lying disposition of the Indians of the Chaco, see for example Nordenskiöld (13), p. 34.
[2] Nordenskiöld (11), pp. 138—140.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

who was wearing it, for, according to his statement, this ornament originally belonged to an enemy killed by him (Cf. the »scalp lock» on the Indian in fig. 42).

On the Spaniards' first coming to the Inca kingdom, there was, naturally, in that country much that aroused their great astonishment. Among

Fig. 50. Bamboo casing for keeping ostrich feather head ornaments. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 10. 3. 18.

Fig. 51. Palm leaf object, said to be meant for wearing in a frontlet. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 89.

other things, the strangers found it especially remarkable that Peruvian men of noble birth were wearing immense, often metal-mounted wooden discs, or hanging ornaments, in their pierced ear-lobes, which were distended to a monstrous size. This custom occasioned the Spaniards to give the Peruvian nobles the nickname of »orejones» — which might be

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

101 translated »big ears» — an appellation subsequently transferred to all such tribes within, or in the neighbourhood of, the Inca kingdom, among whom the wearing of ear-lobe discs was customary.

171 In our days, the practice of wearing ear-lobe discs is met with among
304 a number of tribes distributed over the whole of that part
301 of South America which lies to the north of the tropic of Capricorn.[1] On the Chaco, ear-lobe discs are extensively worn by the Choroti, Lengua[2] and Ashluslay, and are also found among some of the Mataco and Toba Indians.[3] Also in North America the custom of wearing ear-lobe discs, or blocks, appears to be very ancient.[4] The wearing of this kind of ear discs is, however, not limited to America, but is also found, among other places, in Central Africa.[5]

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Among the Choroti, all the men and youths have their ear-lobes pierced, and in the holes they wear discs (see for instance figs. 17, 30, 39, 53). These discs were almost always used for everyday wear, and invariably on state occasions. It very seldom happened that I saw a Choroti man without his ear-discs. Latterly, the practice of wearing ear-lobe discs has, in the same way as other old customs once prevalent among the Choroti, become less common, and nowadays it seems that the Choroti, for everyday use at least, often appear without their discs. The piercing of the ear-lobes is performed with a bone awl, or cactus spine, already during boyhood, but I did not see any boys under puberty age wearing discs. Neither is there anything in the literature indicating that Choroti boys put on ear discs before that age.[6]

[178]

Fig. 52. Brush-like ornament of false hair, for wearing pushed in under the frontlet. Choroti. Gran Chaco. Bolivia. [882] n. Riksm. 03. 3. 65.

But, on the other hand, immediately on having had their ear-lobes pierced, the Choroti children take to wearing bits of grass, or very slender

[1] Nordenskiöld (11), map 18.
[2] Koch (1), p. 318, and Hawtrey (1), p. 283.
[3] Nordenskiöld (11), p. 122.
[4] See for instance Moore (2), p. 282.
[5] von Rosen (4), plate 7, fig. A, and von Rosen (7), p. 124.
[114] [6] When it has been stated that the wearing of ear-lobe discs has nothing to do with pubescence [Nordenskiöld (13), p. 68], this is correct only in so far as the ear discs of the Choroti, like the tembeta of the Chiriguano, may, perhaps, first and foremost be attributed with a magical significance, and that their character of being symbols of puberty is only a secondary one. Cf. Karsten (4), p. 155.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

sticks, in the holes that have been made, in order to keep them from closing up. After the healing of the wound, these plugs are, however taken out, and it is only when the boys have reached the age of puberty, that the ear-lobe is gradually distended by means of plugging with a succession of ear blocks, or ear-lobe discs, of increasing sizes. Only youths of mature age, and men, are allowed to take part in certain religious dances. At the performance of these, it is of especial importance to be protected from evil spirits. According to the belief of the Indians, ear discs afford them such protection,[1] and it is therefore possible that this is the reason why the boys begin wearing ear discs only after having attained puberty. For reasons which I shall explain below, I consider that the *piercing of the ear-lobes by no means always implies wearing of ear-lobe discs*. Among the Choroti, the ears of little girls are often pierced in the same way as in the case of the boys[2] (see the woman with pierced ear-lobes in fig. 22), *but never once did I see a Choroti woman wearing discs in her ears*, nor is there in the literature on these Indians any photographic evidence to be found, as far as I know, of Choroti women wearing ear discs. Further; neither Baron Erland Nordenskiöld,[3] nor Doctor Rafael Karsten, both explorers who have lived for a long time among the Choroti, are now able to recollect with any certainty having seen any Choroti woman wearing ear discs.

To cause bleeding by perforating the skin, has among the Chorotis, as among other tribes in the Chaco — a magic significance, and the possession of many scars is considered a great advantage. Thus, for instance, the Chaco Indians will with ostentation and satisfaction show even scars from bites of the palometa fish. When the Choroti believe themselves possessed by some evil spirit, they prick themselves with sharp-pointed bone awls, and imagine that the spirit leaves the body with the outflowing blood. About this custom, Karsten writes: »If the arm fails or trembles in pulling the bow, its weakness is, according to the belief of the Chorotis, due to the presence of a mohsek in the blood and they think that the evil demon will leave the body with the blood drawn. The scars left by the cuts are kept up with care and shown with satisfaction,

[1] Karsten (4), p. 124, and Grubb (1), p. 72.

[2] Nordenskiöld observed in a Choroti village that *all* the girls had their ears pierced. According to a letter of his, dated 13 May, 1921. Rockefstad collection of manuscripts, volume 1921, letter N.

[3] According to letter referred to in footnote 2.

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9/1 [should be Choroti. - Aunty d]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6
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Ci 304 755 751 almost with pride. *Evidently it is thought that the very scars afterwards act as a sort of charm against the spirits.*'[1]

If scars left by wounds are considered to possess desirable, magical properties, it would easily be supposed that perforations that have been kept open must possess the same properties in a greatly enhanced degree. Among the Chiriguano, neighbours of the Choroti, the actual piercing of the lower lip constituted the most important of the ceremonial acts performed on the boys on their having attained puberty, and among the Chané — whose culture is akin to that of the Chiriguano — not only was the lower lip pierced on this occasion, but the boys were also given other wounds on the body.[2]

Co [881] [304] 171

Ci 304 789 From what I have adduced above, it will therefore be seen that, according to the belief of the Indians, *the making of punctures or perforations on the body, has in itself magic effects, and, consequently, that these magic effects are not believed to arise with the fixing of some ornamental object of magical character — e. g., a tembeta, or an ear disc — into the perforation.*

Ci 304 789 562 This being so, here, in my opinion, lies the explanation of the fact that Choroti girls sometimes have pierced ear-lobes, although it has never *with certainty* been shown that they ever wear ear discs. On the other hand, from reasons I shall present below, it is *probable* that old Choroti women, with distended ear-lobes, *exceptionally* do wear ear discs.

I myself, as well as other investigators of the Chaco peoples, have seen elderly women among the Choroti with holes in their ears so large that one was forced to suppose that the lobes had been stretched in some way or other. Such stretching, however, may not *necessarily* be due to the wearing of ear blocks, but *may* have been produced by manual manipulation. That, by such means, perfectly monstrous distension of the soft parts of the body can very well be brought about, is proved by, among other things, the practice of the Hottentot women of lengthening out — merely by frequent pulling — the labia minora into an enormous size.[3] A similar stretching of the hole in the ear-lobe might, from the Indians' point of view, have for its object the increasing, proportionately to its size, the magic properties of the hole. Among the Incas, the size

[1] Karsten (4), p. 157. Italics by von Rosen.
[2] Karsten (4), p. 200.
[3] von Luschan (1), p. 378.

1: Rosen. E-5 (1901-1902) 1924 SK6 Choroti SK6

of the hole in the ear-lobe was probably an important matter, a point noticed also by Karsten, who writes on this subject: »Of all marks of honour which they received at this initiation, *the holes* in the ear-lobes were the most important. The Inca himself pierced the ears of the young princes with big golden pins, which afterwards were left in the wounds *in order to make the holes larger*.»[1]

For reasons which here follow, I can, however, quite well imagine that exceptions might be made from the rule that ear discs may not be worn by women. Karsten states his observation that women, as a rule, take no part in religious ceremonies, incantations or dances, but adds: »There are exceptions to this rule, and just as elderly women, who have been properly initiated, may perform certain religious ceremonies of their own, so may they also occasionally take an active part in certain religious dances.»[2]

Bearing in mind the fact that ornaments of magical character have their specific uses at dances and other religious ceremonies, and also that ear blocks, as we have seen, are looked upon by the Choroti Indians as means of protection against evil spirits, I do not find it improbable that *elderly women, who have been initiated in magic ritual, on certain occasions may wish to strengthen their power to resist evil spirits by enlarging, as do the men, the holes in their ear lobes by putting in blocks, or discs.*[3]

Among another Chaco tribe, the Toba Takshik, Dr Lehmann-Nitsche has observed that a certain distinctive attribute, which as a rule is exclusively meant for the one sex, may, in rare and exceptional cases, be assumed by the other. Lehmann-Nitsche tells of a man who had been given the tattooing especially distinguishing women, but points out that this must have been an extremely rare case, seeing that it greatly astonished even the interpreter, and suggests the possibility of the man not being considered an »homme normal».[4] It is noteworthy that the tattooing in question, described and reproduced by Lehmann-Nitsche, is practically identical with a tattooing design that adorned a Choroti *man* (see fig. 66).

[1] Karsten (4), p. 136. Italics by von Rosen.
[2] Karsten (1), p. 2.
[3] Fig. 30 in »Indianlif» (Nordenskiöld (13) shows a redoubtable old Choroti-woman, who had executed the tattooing Nordenskiöld had done on himself. This old woman's ear-lobes are enormously distended.
[4] Lehmann-Nitsche (3), pp. 15 and 16.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

171 Among the Ashluslay, who are neighbours of the Choroti, *only the men wear ear-lobe discs*, which probably is also the case among the Toba.[1]

As I have pointed out in the foregoing, in their culture the Lengua are very closely related to the Choroti, and therefore it would be of especial interest to obtain exact knowledge as to how the practice of wearing ear-lobe discs is applied among the first-mentioned tribe. In the literature on the Lengua we find a definite statement by the distinguished explorer, Koch-Grünberg, to the effect that among the Lengua it is *exclusively* the men who make use of ear discs,[2] whilst the equally prominent Chaco expert, Grubb, says that it is *chiefly* the men who wear these ornaments.[3] Grubb has published the picture of a woman who has distended holes in her ears, but is *without discs*.[4]

From the statements made by Koch-Grünberg and Grubb, I think it probable that among the Lengua, as among the Choroti, it is the rule that ear discs are worn exclusively by the men, but that exceptions may occur. That such exceptions must be of extreme rarity is as obvious as could be desired, from the fact that Koch-Grünberg never saw a single Lengua woman wearing ear discs.

301 322 Among the Choroti, the ear discs[4] are made of wood, cane, gourd shell or palm leaves. In the wooden discs, the front face is flat and often metal-mounted (figs. 53 and 54), or has ornament burned in (fig. 55); the rear face is usually convex and, as a rule, provided with a hole bored or burned into it, sometimes forming a perforation right through the disc. Occasionally the cylindrical surface of the discs is decorated with ornament burned in.

301 The long necklaces of snail-shell spangles, like most other ornaments among the Choroti, are worn exclusively by men. These necklaces usually have a length of several metres, and rank as highly valued possessions; it is exceedingly difficult to obtain such a treasure from a Choroti by barter. The most elegant of the men often wear several necklaces of this

[1] Nordenskiöld (13), p. 68.

[2] »Diese Pflocke sind *ausschliesslich eine Zierde des männlichen Geschlechts; die Frauen tragen sie nie.* Das erste Anlegen des Pflockes ist eine Art religiöser Feier, bei der sie nicht gern einen Fremden dulden,« Koch (1), p. 218. Italics by von Rosen.

[3] »Wooden ear-discs are worn as ornaments, chiefly by the men.» Grubb (1), p. 72. Hawtrey, who has also written about the Lengua, does not say whether only the men wear ear discs, but he has described these objects in connexion with other objects of a more or less magic character, which *as a rule* are worn by men. Hawtrey (1), p. 383.

[4] Grubb (1), the top picture on the plate behind page 72.

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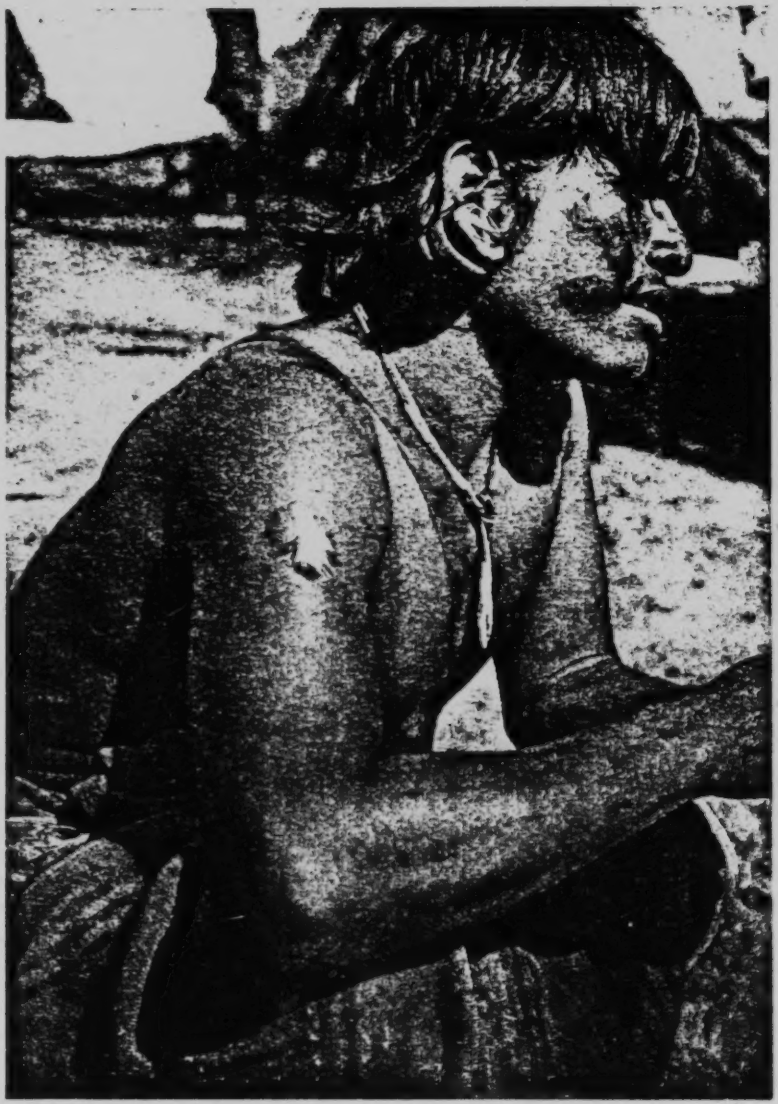

Fig. 53. A man with ear-lobe discs, set with pieces of tin. On his right upper arm is seen the scar from the terrible bite of a palometa fish (Serrosalmo sp.). Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

(67)

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

kind, the total length of which may amount to as much as 15 metres. Thus, for instance, the ornamental outfit seen in fig. 56 consists of two necklaces, respectively 4.39 and 4.61 metres long.

Necklaces of mussel- or snail-shells of the shape shown in fig. 57 and 58 are also popular. The necklace, fig. 57, consists of 15 spangles made from shells of the common river mussel of the Chaco. The spangles, which are only slightly more than one millimetre thick, are chipped or ground into more or less circular shape, and in, or near, their centre have a perforation right through. Through these holes a string is threaded, so as to keep the spangles fixed in the way shown in the picture. On the reverse sides the spangles retain the rough, greenish brown surface of the mussel-shell; their front sides display the mother of pearl lustre peculiar to the inner side of mussel-shells. In each spangle the front face is pitted with 4 to 5 shallow borings, which either have a magical significance, or may be only designed to enhance the decorativeness of the necklace.

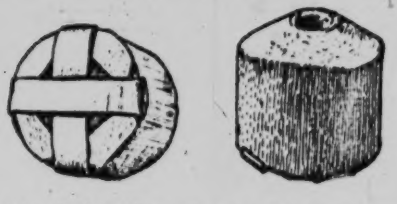

Fig. 54. Ear lobe discs, of wood with tin mountings. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 57.

Fig. 55. Ear lobe disc of wood, bored right through. On its cylindrical surface ornament has been burned in. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 56.

The tags on the necklace shown in fig. 58 consist of rectangular slabs of mussel- or snail-shells. These slabs, which have been very neatly chipped into shape, possess on their front sides a beautiful mother-of-pearl lustre, although they are not of such high opalescence as the spangles in the necklace, fig. 57. The front side of each tag has 3 to 5 shallow borings, the hinder side is bone white. Necklaces of this kind, with quadrilateral tags of mussel- or snail-shell, are specially characteristic of the Chaco.[1]

The Choroti have acquired glass beads from the Europeans, but such beads are far less valued than spangles or the thin plates of snail- or mussel-shells.

[1] Krickeberg (1), p. 132.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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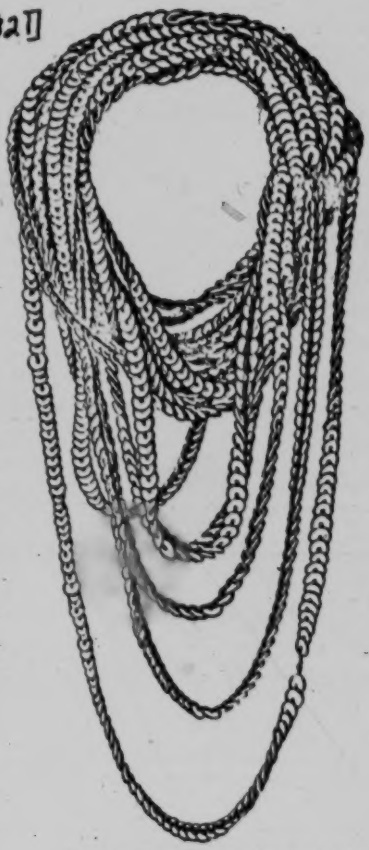

Fig. 56. Ornament consisting of two necklaces formed by perforated and threaded snail-shell spangles. One of the necklaces is 4 m 39 cm long, the other 4 m 61 cm. Choroti. Gran Chaco. Bolivia. Riksm. 03. 3. 45 & 46.

Fig. 57. Necklace of mussel-shell discs. Choroti. Gran Chaco. Bolivia. Riksm. 03. 3. 49.

Fig. 58. Necklace of plates of mussel- or snail-shells. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 48.

mussel shells. Necklaces worn by the women (figs. 61 and 62) as a rule consist of glass beads, but I saw men, too, wearing this kind of ornament (figs. 17 and 53).

The men adorned themselves with armlets, generally consisting of a narrow strip of birdskin, with the down, mostly white, left on (fig. 151). But armlets made out of white-haired oxhide, or palm leaf (fig. 24), were also of common occurrence. Another kind of armlet, which I less frequently saw, consisted of a narrow woollen-band, with snail-shell spangles sewn on (fig. 171, the man on the left in the foreground).

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Round the ankles the men often wear birdskin bands, in appearance similar to the armlets (fig. 30, the second man from the left). There may also be seen anklets made up from ostrich feathers lashed on to a thickish cord of caraguatá or wool (fig. 59). According to what several Choroti Indians told me, anklets are worn not only as ornaments, but also as a protection against snakebite. If a man wearing feathered anklets should happen to step upon, or close to, a snake, the latter, my informants assured me, would almost for certain first strike at the showy feathers. This warns the man of his danger, and he will generally have time to jump aside before the snake is ready to strike again. This belief is also found among the Lengua.[1]

Fig. 59. Anklet, made of ostrich feathers tied round a thickish piece of string. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 34, a.

The articles of dress, as well as the ornamental objects,[2] that I have described in this chapter, are, as I have said, only such things as appertain to the stronger sex; but one ornament, however, which to an equal extent is worn by men as well as women, is the finger ring made of lizard skin (fig. 60). These rings are made in a rather original manner. Anybody wanting rings, whether for himself or for giving away, kills a lizard. The part of the animals tail that in thickness about equals the size of a human finger, is cut, according to its segments, into slices from 2 to 5 mm wide, and then the inside of the sections is removed. The rings are now ready for use, and it only remains to try them on for the best fit. As we know, the tail of a lizard tapers towards the tip, and this makes the rings differ somewhat in size, so that it is no difficult matter to find rings to fit any sizes in fingers.

Fig. 60. Finger ring of lizard skin. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 35.

[1] Grubb (1), p. 72.

[2] Many of these ornaments have a magical character. In Chap. VI I shall deal with this point more fully.

291 [177] The women of the Choroti, especially the younger ones, have very generally adopted the woman's garment common among the Chiriguano, which is called »tipoy« and consists of a cloak-like covering hanging from the shoulders, where it is secured with cactus spines (fig. 62). The cloth forming the material of these tipoys, is an acquisition by the Choroti from the whites. I saw Choroti girls that had not troubled to sew their tipoys together, but thought it sufficient to pin the edges together with cactus spines down one side. Occasionally the girls wore the tipoy from the hips, as seen in fig. 61. The original garb of the Choroti women consists of a deer skin, or a length of home-woven woollen cloth wrapped round the hips (fig. 21), leaving bare the upper part of the body. Nowadays one only sees elderly women dressed in this way.

301 Contrasted with the men, the women have very few, and very unpretentious, ornaments. The girls wear a necklace or two, made from glass beads or porcelain buttons (fig. 61 and 62), and lizard-skin finger rings. Now and again one may see a woman with armlets, or finger rings, consisting of threaded glass beads, pieces of leather or palm leaf (fig. 62, the girl on the extreme right, and fig. 152).

302 304 The practice of decorating the face by tattooing and painting is common to both sexes. The men, however, are not always tattooed, which, on the other hand, is the case with the women. Painting of the face, which may safely be assumed to possess magic significance,[1] is performed by men as well as women on all important occasions.

304 Whilst it is the prerogative of the men to adorn themselves with the showier ornaments, it is generally the women who display the more abundant tattooing (cf. figs. 63—66 and 71—76). The tattoo marks that a fully grown Choroti woman wears on her face, have not been worked on her all at the same time, but during different phases of her life as she grows up. According to Nordenskiöld, the Choroti begin tattooing their children already when the latter have reached an age of from 5 to 7 years,[2] and thenceforth various designs are added as the years pass. As a rule, the men are not tattooed, or they may have just a few tattoo marks (fig. 63), and it is exceptional to see Choroti men as profusely tattooed as the men in figs. 64—66.[3] As I have already pointed

[1] See Chap. XII.

[2] Nordenskiöld (13), p. 68.

[3] Compare, with this for instance, Lehmann-Nitsche (1), pp. 80 and 81, and Nordenskiöld (13), pp. 69 and 70.

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Fig. 61. Choroti girls, wearing »tipoys» from the hips. The girl farthest on the left is wearing a necklace of porcelain buttons. The other necklaces consist of glass beads. Gran Chaco, Bolivia. Photo. E. v. R.

Fig. 62. Choroti girls with »tipoys» fastened over the shoulders with cactus spines. The necklaces are of glass beads. Gran Chaco, Bolivia. Photo. E. v. R.

out, the tattooing reproduced in the last-mentioned diagram is almost 304
identical with the face-tattooing on a Takshik man reproduced by Lehmann-Nitsche.[1]

Only grown women are plentifully tattooed, and a tattooing like the one reproduced in fig. 73 is *never found on any woman under marriageable age*. Just as with us the girls are not at once given long skirts to wear, but only by degrees, so the girls of the Choroti with the passing of the years are given additional tattooing, until, having grown into mature women, their face-ornamentation is complete.

With many Chaco tribes, tattooing is probably as a rule a puberty [171]
sign of a magic character, especially set apart for the women. Among the Ashluslay, only the women are tattooed,[2] and, according to Karsten, the women of the Ashluslay on the lower reaches of the Pilcomayo are tattooed as they enter upon puberty.[3] Among the Toba, only the women are as a rule tattooed.[4]

The tattooing is generally performed with cactus spines (fig. 77), but exceedingly sharp-pointed bone awls (figs. 81 and 88, c) are also used. The latter are often wound with woollen yarn, leaving only a few millimetres from the point, so as not to penetrate unnecessarily deep into the skin (figs. 185 and 186). These wool-wound bone awls are, however, primarily intended for being used in a peculiar kind of blood-letting, to which I shall again refer in connexion with the magic practices of the Choroti. The most practical way in which to perform tattooing is undoubtedly by using a small bunch of Cactus spines, for then several punctures result from each stab. On the only occasion when I saw tattooing being performed, the puncturing was made with bone awls, it is true, but that may possibly have been owing to there being no cactus spines handy. Other investigators, who have spent longer time than myself among the Choroti, only mention cactus spines as puncturing instruments in tattooing.

Tattooing is performed in the following way: With saliva strongly mixed with soot, the tattooing artist (often an elderly woman), by means of a small stick outlines the desired pattern on the face of the person who is to be tattooed, whereupon the tattooer stabs at the sketched

[1] Lehmann-Nitsche (3), p. 16.

[2] According to Nordenskiöld, the Ashluslay girls receive their first tattoo marks at the age of about 5 to 7 years. Nordenskiöld (13), p. 68.

[3] Karsten (4), p. 24. Cfr. also what Karsten says about tattooing, pp. 220—222.

[4] Lehmann-Nitsche (3), p. 16.

A [should be lower case. - ANALYST]

Fig. 63. Fig. 64. Fig. 65. Fig. 66.

Figs. 63—66. Tattooing on men. From author's sketches.

Fig. 67. Fig. 68. Fig. 69. Fig. 70.

Figs. 67—70. Face-paintings on untattooed men. Figs. 67 and 68 in red; fig. 69 in black; fig. 70 in black and red (the lines at the root and ridge of the nose are black, the rest are red). Choroti. Gran Chaco. Bolivia. From author's sketches.

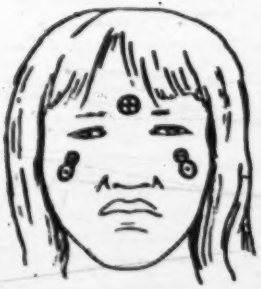

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Fig. 71.

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Fig. 72.

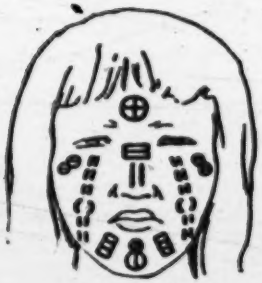

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Fig. 73.

Figs. 71—73. Tattooing on women. Choroti. Gran Chaco. Bolivia. From author's sketches.

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Fig. 74.

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Fig. 75.

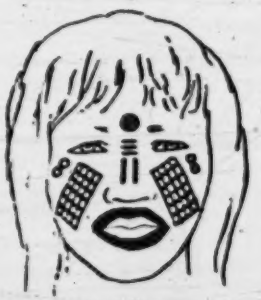

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Fig. 76.

Figs. 74—76. Tattooing and painting on women; in the figures the tattoo marks are shown in black, the painting shaded. The painting was done with red paint. Choroti. Gran Chaco. Bolivia. From sketches by the author.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

304 pattern with the cactus needles, or bone awl, until beads of blood appear, when the soot-mingled saliva is rubbed into the punctures. After healing, the tattoo marks assume a bluish colour.

302 At dances, lovers' meetings, and other important occasions, men and women paint their faces (figs. 62, 67—70 and 74—76). Face-painting may be done either in red (figs. 67—68 and 74—76) or in black (fig.

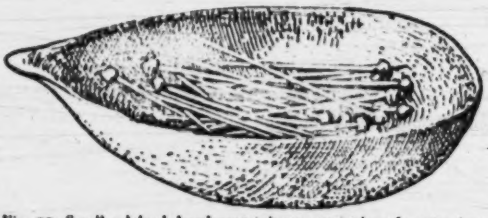

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Fig. 77. Small calabash bowl containing cactus spines for tattooing. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 87.

Fig. 78. Red paint, ready prepared for face-painting. This lump of paint, which is wrapped in a sheath of palm leaf, may possibly have reached the Choroti by barter from the Chiriguano. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 104.

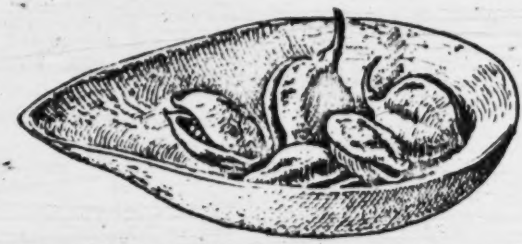

Fig. 79. Small calabash bowl containing fruits of Bixa orellana. From the seeds of these fruits colour is prepared for face-painting. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 102.

Fig. 80. Miniature bowl of wood, holding colour seeds. The bowl and the seeds have possibly been obtained by the Choroti through barter with the Chiriguano. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 180.

69), or in both red and black (fig. 70). Painting the face in red is commonest. The black paint consists of soot and saliva, whilst the red colour (fig. 78) is prepared from seeds of Bixa Orellana (fig. 79). These seeds are usually obtained by barter from the Chiriguano, and are carefully kept by the Choroti in small calabashes. I have also seen miniature wooden bowls (fig. 80) used as receptacles for these colouring seeds after they have been taken out of the follicle.[1] The soot is usually kept in a

[386 439]

[114]

[1] Owing to a mistake having occurred as to the identity of seeds, in my first treatise on the Choroti I have erroneously stated that the red paint used in face-painting is made from the seeds of Caesalpina melanocarpa.

302 bamboo holder, 10 to 15 cm long, and 1 to 2 cm in diameter. The bottom of this cylinder consists of a joint in the bamboo, and for its mouth there is a stopper of wool, grass, bast or bees-wax.

[291] In painting the face, the paint is put on with small stamps, which either consist of the jaw-bone of a siluroid (figs. 81, 88 b) or of a piece of carved wood (fig. 82). Flat wooden stamps with diamond pattern are also used.[1] Those interesting stamps that are made from jaw-bones of fishes, are undoubtedly the prototype of the wooden stamps.

[531]

Fig. 81. Jaw-bone of a siluroid. The row of teeth is used as a stamp for putting on the paint in face-painting. The fore-end of the bone is sharpened to a point, so that this object can also be used in tattooing and blood-letting. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 100.

[304]

[303 515]

Fig. 82. Paint stamp made of a cane splinter. Is used in the same way as the fish jaw in fig. 81. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 94.

For cutting off the hair to the desired length (figs. 16—24, 30, 39, 53 and 83), the Choroti use the jaw of the palometa fish, which is set with exceedingly sharp teeth (fig. 84).[2] These are also used as louse-combs, although the Choroti as a rule carry on their louse-hunting only by the means that nature has provided them with. It is possible that once upon a time palometa jaws formed the only combs that the Choroti possessed, but that they afterwards went out of fashion when the more practical wooden or split-cane combs came into use. Of the latter, we may take it that the split-cane combs are the

Fig. 83. A man with hair hanging loose. Choroti. Gran Chaco Bolivia. Photo. E. v. R.

Fig. 84. Jaw of palometa fish (Serrosalmo sp.), used for hair-cutting. Also said to be a louse-comb. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 10. 3. 29.

[1] Nordenskiöld (11), fig. 42.

[2] Nordenskiöld (13), p. 100.

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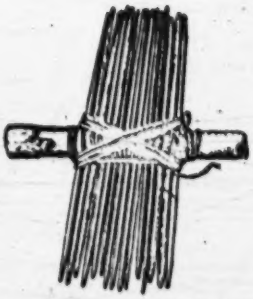

Fig. 85. Split-cane comb. Choroti. Gran Chaco. Bolivia. $^{3}/_{4}$. Riksm. 03. 3. 74.

Fig. 86. Wooden comb, carved in one piece. Choroti. Gran Chaco. Bolivia. $^{3}/_{4}$. Riksm. 03. 3. 70.

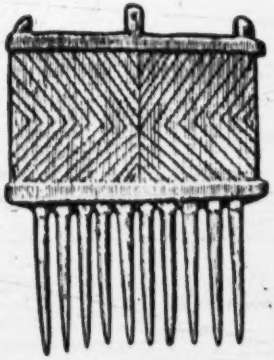

Fig. 87. Wooden comb, carved in one piece; the handle carved on both sides into angular ornament. Choroti. (This comb may possibly have been made among the Chiriguano.) Gran Chaco. Bolivia. $^{3}/_{4}$. Riksm. 10. 3. 38.

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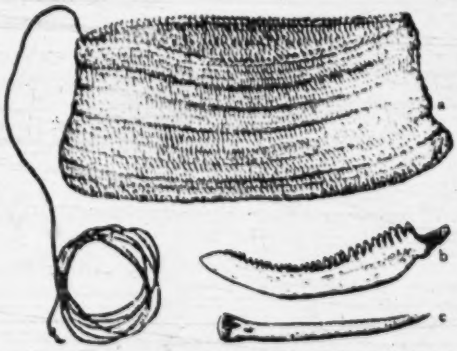

Fig. 88. Miniature bag (a) of undyed (greyish-white), brown, yellow, and black caraguatá fibre. When the author obtained the bag, it contained a stamp for face-painting (b) and a small bone awl for tattooing and blood-letting (c). Choroti. Gran Chaco. Bolivia. $^{3}/_{4}$. Riksm. 03. 3. 101.

older cultural element. The split-cane comb in fig. 85 consists of a piece of cane, about 7.2 cm long, into which a split has been made from one end, so that only 2 cm of the other end of the cane are left intact. The insides of the two legs forming this crotch have been pared down so that the space between the legs of the crotch equals the thickness of the comb teeth at their middle, i. e., in this case about 4 mm. In the fork of this crotch the teeth, 1 to 2 mm thick, have been placed and secured by tying, with their flat sides together. This class of Choroti combs are generally of a construction differing somewhat from the one described, in that the cane has not been split from one of the ends in order to afford room for the teeth, but, instead, there is usually in the middle of it a recess, into which the teeth are fixed in the way I have described.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Apart from split-cane combs, the Choroti also have wooden combs, carved in one piece (figs. 86 and 87). It is probable that formerly the Choroti did not themselves make as well-made combs as the one reproduced in fig. 87, as, until quite lately, the Chaco peoples have been without good cutting implements of stone or metal. Among the considerably higher cultured Chiriguano, who, for a certainty, have long possessed metal tools, carefully worked wooden combs are very common. It is therefore possible that the neat-looking comb shown in fig. 87 was made among the Chiriguano, although it may subsequently have reached the Choroti through barter. As I have previously pointed out, there are certain toilet articles, viz., colour seeds and ready-prepared red paint, of which the Chiriguano dispose to the Indians of the Chaco. The Choroti keep their toilet articles, not only in bowls and boxes of calabash, but also in miniature bags of caraguatá (fig. 88).

On account of the dearth of water that periodically recurs on the Chaco, the mere nature of their country makes it impossible for many of the Choroti to observe the same bodily cleanliness as the Chiriguano. But even if the Choroti were well off as regards water supply, I do not believe that they would to any appreciably greater extent indulge in any bathing or washing *intended for the better care of the body*. For, it must be said, the Choroti do not possess anything like the Chiriguano's sense of cleanliness.

Nordenskiöld, who has had opportunities of studying the Choroti Indians on the Pilcomayo, where of course they had plenty of water, writes as regards their lack of cleanliness, inter alia, as follows: »Never did I see an Ashluslay washing his clothes, nor any Choroti, unless they had learnt it from the whites. And to bathe, just for the sake of bathing, is a thing these Indians would only do, I should think, when the weather is really hot. Fishing, however, of necessity takes the men a great deal into the water. The children often play about in the water, too, which makes for keeping them clean. And the 'wee-wee ones' get washed by their mothers when the latter go down to the river.»[1]

»Caring for the body», among the Choroti, is mainly limited to decorating the face by painting, combing the hair, picking out lice, and pulling out all hairs on the face and about the private parts. Painting,

[1] Nordenskiöld (13), p. 78.

515 Painting,
302 pulling out of hairs, and, in certain cases, the cutting of the hair, are,
[782] however, probably to a great extent to be looked upon as acts of magic import.[1]

515 A toilet business that cannot very well be said to be due to any supernatural conception, is, however, lice-picking. Practically all Choroti are infested with lice. When these are getting too troublesome, somebody is called in for assistance (see fig. 89). This is a service willingly rendered by the Choroti, for it is a kind of hunting that they visibly enjoy. To an onlooker it would seem as if the louse hunters also greatly valued
[262] the quarry, for as soon as a louse has been caught, it is eaten by the hunter. But nevertheless I think it a mistaken idea that phthiriophagi find the lice nice-flavoured, for head lice are surely too small to have any particular taste, good or bad. Lice-eating probably has probably originated from a desire to render harmless, in the simplest way, such lice as have been caught. These little animals take a good deal of killing, if done with the fingers only, and there is not always a camp fire handy, into which to throw them; for less squeamish individuals, the eating of the catch undeniably proved the most practical way. I think it very probable that lice-eating also among monkeys has its explanation in a wholly conscious effort at annihilating noxious parasites.

[1] Karsten (4), Chap. 1, 2 and 6.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 89. Woman taking lice from her husband's head. Choroti on their wandering towards the Pilcomayo. Dry-soil forest region between Caiza and Fort Crevaux. Gran Chaco. Bolivia. Photo. E. v. K.

[p.84 is blank]

1: Rosen E-5 (1901-1902) 1924 SK6 Chorotí SK6

CHAPTER III.

The Choroti (3). Modes of subsistence.

Their various industries. Hunting. Bows. Arrows. Game-stalking. Game-driving. Decoying game by imitative calls. Tracking. Snares. War weapons. Clubs. Knuckle-dusters. Bone daggers. Knives made of cane. Mail shirts. Methods of warfare. Incendiary arrows. Ambuscades. Preparing for war. Scalping. Torture. Causes of war. Fishing. Nets. Driving fish. Blocking up fishing-water. Swimming and wading, in fishing. Fish fences. Pile-buildings used in fishing. Mesh-spacers. Fish-hooks and lines. Fish clubs. Transportation of fish. Dangers in fishing. Gathering of wild food plants. Implements used in gathering wild plants. Agriculture. Cultivated plants. Agricultural implements. Cattle-rearing. Domestic animals. Nomadic life. Trading.

The Choroti subsist on hunting, fishing, the gathering of wild, edible plants, and, to some small extent, also on a very primitive form of agriculture, and by trading with their neighbours.[1]

Hunting of game is mainly done with bows and arrows, and snares. The pellet-bow and the sling are met with among the Choroti, but are only used as toys.[2]

The collection of Choroti objects that I presented to the Riksmuseum included 14 bows, only 11 of which are now to be found. They form the material upon which the following description of Choroti bows is founded.

The bow staves consist of some kind of wood which is hard, resilient and usually free from knots. Probably quebracho (Schinopsis lorenzii) and palo mataco (Achatocarpus praecox) are the woods most frequently used as bow stave material. The bows of the Choroti (figs. 90 and 91) are better made than those of the Chiriguano, but are not of such good workmanship as the bows that I have seen among the Toba on the upper Pilcomayo.

[1] The description I am here giving of the Choroti refers, unless otherwise stated, to this tribe's mode of living at the time my observations were made (1901). Since then, many changes have come into the Chaco Indians' mode of living.

[2] Nordenskiöld (13), p. 48.

[p. 85]

1:Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Fig. 90. Riksm. 03. 3. 245.

Fig. 91. Riksm. 03. 3. 256.

Bows. Choroti. Gran Chaco. Bolivia. 1/8. In shooting, the bows are held in the position shown in the figures, i. e., with the part of the stave downwards, on which the string is wound.

Among the Choroti, as among their neighbouring tribes with the exception of the Chiriguano, the bow staves are sometimes made with a bend at the ends towards the string, these bends having been produced *before* the stringing of the bow (see fig. 91). How the bends are effected among the Choroti I cannot say, but it is probable that they, like the Lengua, for this purpose use fire.[1] According to Grubb, the Lengua shape the staves also with axe or knife so the stave ends assume the bent shape required. This can, of course, only be done by making the ends strongly tapering, as then they are more easily bent. The direct carving or cutting out of a bow stave with bent ends from a piece of woods is certainly possible, but to my thinking the stave would break at the very first attempt at stringing the bow, because in such a case the grain of the wood would not be following the bend of the stave.

Fig. 93. Lower string hold, and string noose, of the bow, fig. 90.

a. b.

Fig. 92. Upper and lower string-holds and string nooses of the bow, fig. 91.

By giving the ends of a bow stave an inward bend in the way done in certain Chaco bows, the greater part of the stave — even when stringed — is free from any strain, except when the string is being

A. B. C.

03. 3. 250. 03. 3. 256. 03. 3. 257.

Fig. 94. Tranverse sections at middle of the Choroti bow staves. Gran Chaco, Bolivia. 1/1. Riksm.

[1] Grubb (1), pp. 76 and 77.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

drawn back for giving speed to the arrow. Of the circumstances which require a bow-stave construction of this kind, I have given a full account in my description of the bows of the Bangweolo swamp dwellers,[1] so that here I will only mention that such a construction is the right one only for bows that are never altogether unstrung.

Among the Choroti, as among the Mataco,[2] the curved end type of bow is considerably more rare, and less developed, than among the Toba, which latter tribe, according to my opinion, has preserved the Chaco bow in its purest and most highly developed type (see figs. 272—274). Probably the Choroti formerly had bows of the same type as the Toba, but in later times the bow type of the first mentioned tribe is likely to have been influenced by intercourse with the Chiriguano.

Chaco bows have not, *as a rule*, ends that have been pared down for giving a hold to the string (Cfr. figs. 92 and 93 with fig. 205); some Choroti bows, however, have been given this kind of string hold, as may be seen from the table below. These pared down bow ends are undoubtedly an imitation of the Chiriguano stringhold. On the bow stave, immediately inside the loop of the string, the Choroti occasionally lay on a winding of caraguatá or woollen yarn, 0.5 to 1 cm wide (fig. 93), which prevents the string loops from slipping down along the bow stave when the strain is very hard. In a properly made bow, no such windings are necessary, and were certainly not used in the old days, otherwise than exceptionally. Nowadays these windings are often seen: of the eleven Choroti bows studied by me, no less than four are wound inside the string holds.

As a rule, the bow staves have been polished very smooth. Their transverse sections at the middle are shaped as seen in fig. 94. Between the section types A, B and C, there are intermediate forms, which, in my table of Choroti bows, I have named AB and BC.[3] Such transverse sections as are found in the bows of the Choroti are also met with in bows found in the Andean mountain regions, and in the report I have published of my archaeological researches in Quebrada del Toro and on the Puna de Jujuy, I have embodied a description of some bows and bow fragments, found in ancient graves, which have the same kind of section and string hold as the typical Chaco bows. Several of the Andean bows are, however,

[1] von Rosen (4), pp. 176—184.

[2] Cf. Krickeberg (1), fig. 33 a.

[3] For transverse sections of other Chaco peoples' bows, see Schmidt (1), p. 1027 et seq.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Choroti bows.

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Catalogue Nr., Riksm. coll. 03. 3.	Bow-stave material	Length of bow stave, cm	Transverse section at middle of bow stave	Upper string-hold	Lower string-hold	String-material	Remarks
245	Hard, resilient, free from knots	159	Type A	Not pared down	Not pared down	Twisted rawhide	String hold barely noticeably pared down
247	Hard, resilient; less free from knots	150	» »	Not pared down	Not pared down	»	
250	Hard, resilient, free from knots	146	» »	Pared to a neck	Pared to a neck	»	Bow stave near point of upper end sheathed in a rawhide covering, slipped on, about 4.5 cm long
254	Hard, resilient, free from knots	132	» AB	Not pared down	Not pared down	»	Winding for fixing string loop
256	Hard, resilient, free from knots	146	» B	Not pared down	Not pared down	»	Winding for fixing string loop
255	Hard, resilient; less free from knots	146	» »	Not pared down	Not pared down	»	Unusually sharp pointed end
251	Hard, resilient, free from knots	144	» »	Not pared down	Not pared down	»	
252	Hard, resilient, free from knots	136	» »	Not pared down	Not pared down	»	Bow stave near its middle provided with a rawhide sheath, about 8 cm long
253	Hard, resilient, free from knots	133	» »	Not pared down	Pared to a neck	»	Winding, to prevent slipping of string loop. A 5.5 cm long sheath of rawhide fitted on, near lower end of stave
258	Hard, resilient, free from knots	142	» BC	Not pared down	Not pared down	»	
277	Hard, resilient, free from knots	147	» C	Not pared down	Not pared down	»	Winding for fixing string loop.

of convex type — i. e., the staves have a convex string side, and a plane, or slightly concave, back — but I have not seen any Choroti bows with that kind of stave, which does not exclude the possibility of their occurring by way of exceptions. The convex bow is, however, better than the concave kind, and all technically perfected European target bows have their staves convex.[1] The fact of the concave bow being common among a people as low-cultured as the Choroti strikes one as something less to be wondered at than that this type of bow also was in use (together with the concave type) among the comparatively highly cultured Andean tribes.[2]

411 825 In some of the Choroti bows, a sleeve-like covering of rawhide has been fitted on to the stave (see Table »Choroti bows», under »Remarks»).

[1] Walround (1), p. 286 et seq.

[2] I have previously published an attempt at explaining how the concave type came into being. See von Rosen (10), pp. 34, 35 and 78, 83.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

These casings are not sewn together, but consist of the seamless skin of the tail or leg of some animal. At first I took it as a matter of course that these casings had been put on solely for the purpose of strengthening the bow at some point where it looked like breaking. In order to make certain, I cut loose a casing of this kind, which was on the bow numbered 03. 3. 253, but I could not discover the least crack, knot, or other defect pointing to any necessity for reinforcing the bow at that point. But, between the casing and the stave, I did find some flattened cakes of excrement from some herbivorous animal. Whether these excrements had *purposely* been placed inside the casing, is of course impossible to say, but if they were put there on purpose, then they undoubtedly possessed some magical significance. In such case the idea must have been that they would bring good luck in the hunting of the species of game whose excrement had been placed inside the casing (see p. 181). As among the Indians there is a very wide-spread notion that whoever possesses the skin of some animal also possesses a certain mastery over the spirit of that animal,[1] it is not impossible that the skin casing itself is of a magic character. Professor Emil Holmgren, who, at my request, kindly carried out a microscopical examination of the excrement flakes as well as of the piece of skin, considers that the character of the latter points to its having been a part of the tail of an animal of the goat, sheep, or *cat* tribe, and that the colour and grouping of the hairs are indicative of the *last-mentioned* category.[2] That parts of animals' bodies are used by the Chaco Indians as hunting amulets, is, among other things, evident from a statement by Nordenskiöld upon the subject of hunting among the Ashluslay, who are neighbours of the Choroti: »In hunting, the Ashluslay make use of various amulets. If, in the always indispensable caraguatá bag, one carries the head of a tortoise, then one is able to stalk close up to the deer, without putting them to flight. When hunting ostriches, it is a good thing to bring along pieces of skin taken from the breast of ostriches which one has killed.«[3] As to the other two bows, I have refrained from cutting off the skin casings, and therefore cannot say whether the latter conceal any cracks or not. On the staves of the bows Nos. 03. 3. 252 there are, however, to be seen, close to the casing, several deep scorings, running

[1] Karsten (4), p. 90.
[2] Opinion dated August 24th, 1921. Rockefeld collection of Manuscripts, Volume 1921, »H».
[3] Nordenskiöld (13), p. 49.

411 with the grain of the wood, and these point to the possibility that the casing may be concealing some defect in the stave. There is, however, nothing which prevents the casing on this bow from being, at the same time, an instrument of magic and a practical means of reinforcement.

411 284 [283] The bow string, which consists of two, three, or more strips of skin (usually deerskin),[1] is often twice the length of the bow (see figs. 90, 95 and 96). One end of the string is fixed with a hard knot to one of the bow ends fig. 93 a). This end of the bow is pressed on the ground, and then the stave is given a slight bend — with the help of the knee — and the string is wound on to the upper bow end, in the way seen in figs. 92 and 93 b. The spare end of the string is then tied along the outer side of the bow, as seen in fig. 90. This figure shows a comparatively well-made Choroti bow, without pared-down string-holds, or windings for holding the string in position, and with the string put on in the proper way. On the other hand, fig. 91 shows a bow with string-hold windings and a string badly put on. In shooting, the Choroti generally hold the bow so that the end wound with the loose end of the string points downwards (figs. 90, 91 and 96).

411 Even when the bow is »at rest« (that is to say, when the string is not much tightened), the middle part of the string, owing to the said curving of the stave ends, will be at a certain distance from the stave, which makes it possible to use the bow without first tightening the string. But if there is time for shortening the string, this is almost always done. The Choroti shorten and lengthen the bow string, in the same way as is done by the Chiriguano on their bows (see p. 208).

For the protection of the wrist from the blow of the string, the Choroti sometimes use broad wrist guards of leather.[2]

[177] The arrows used by the Choroti are, as a rule, tipped with some hard, heavy wood (figs. 97—103), but iron arrow-heads (figs. 104—106) are more and more coming into use. Occasionally, the fore end of a wooden arrow-head may be fixed into the marrow cavity of a sharpened piece of bone. Such bone-tipped arrows are, however, very rarely met with among the Choroti; for my own part, I failed to acquire more than a single

[1] The Chorotí also use bow strings made of caraguatá fibre; Nordenskiöld (11), p. 36. I never myself, however, saw any bow strings of that kind.

[2] Nordenskiöld (11), p. 43.

[Text continues on p. 94]

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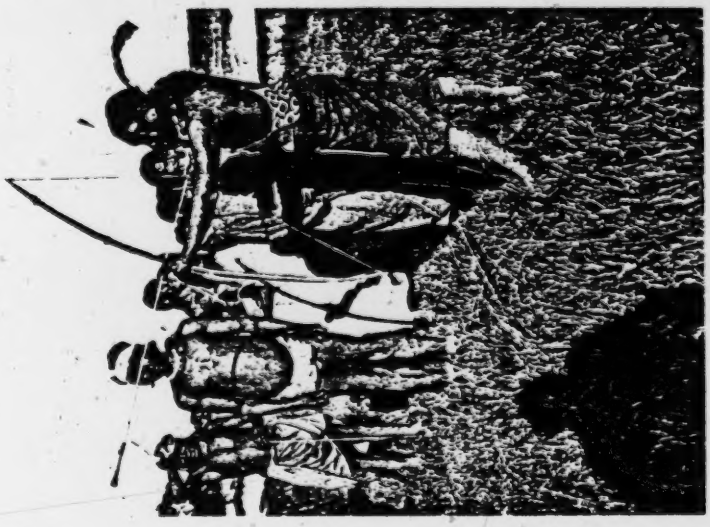

Fig. 96. A man aiming with a bird arrow. Choroti. Gran Chaco. Bolivia.
Photo. E. v. K.

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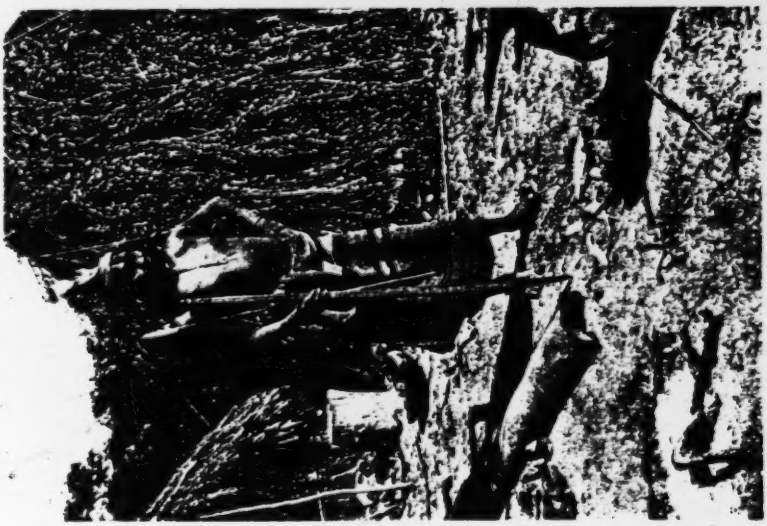

Fig. 95. A man with bow and arrow. Choroti. Gran Chaco. Bolivia.
Photo. E. v. K.

[p. 92 is blank]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 97. 1/6. 10. 3. 137. | Fig. 98. 1/6. 10. 3. 136. | Fig. 99. 1/6. 03. 3. 333. | Fig. 100. 1/6. 03. 3. 314. | Fig. 101. 1/6. 03. 3. 317. | Fig. 102. 1/6. 10. 3. 98. | Fig. 103. 1/6. 03. 3. 343.

Arrows tipped with hard, heavy wood, and with shafts of reed. Choroti. Gran Chaco. Bolivia. Riksm.

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Fig. 104. 1/2. 03. 3. 355. Fig. 105. 1/2. 03. 3. 360. Fig. 106. 1/2. 03. 3. 375. Arrows tipped with iron, and with reed shafts. Choroti. Gran Chaco. Bolivia. Riksm.

specimen, which ought to be in the Riks museum collection (numbered 03. 3. 259).[1]

The arrow-shafts consist of a reed, and are generally without feathers. When they do occur, they are fastened on in the way fig. 107 shows.

The wooden arrow-heads, which are usually of quebracho (Schinopsis lorenzii), palo mataco (Achatocarpus præcox), or palo santo (Bulnesia sarmienti), are fitted into the reed shaft, the front end of which is wound with caraguatá fibre in order to prevent its being split open by the arrow-head. This winding is coated with bee's-wax. The rear end of the reed has a notch for the bow string (see fig. 107). The length of the reed is adjusted in such a way that the notch in the butt end can be made immediately behind a joint, which naturally increases the strength of the shaft butt. The rear end of the shaft too is provided with a heavily waxed winding of caraguatá fibre. The thicker end of the reed (the lower end of the growing reed) is always used for fixing the arrow-head, as then the joints slip more easily over the bow-stave than if the head were inserted in the thinner end of the reed.

Such arrows as are pointed with thick iron wire (fig. 104), have the rear end of the point wound with well waxed fibre. The fibre-wound part of the arrow-head is pushed so far into the shaft as to make the front edge of the winding come flush with the mouth of the reed shaft. Lanceolate iron heads (figs. 105 and 106) are fitted into a cleft wooden socket, in the manner I have described from the Chiriguano (see p. 208).[a] Over the winding, which

[1] Cf. Nordenskiöld (11), fig. 5 b.

[a] [Not processed. — Analyst]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

is applied about the socket, there is sometimes, covering it wholly or in part, a casing of snake or lizard skin (fig. 106). In order that the heavy arrow-head (together with its socket) may not happen to slip out of the shaft when the arrow is being carried in the belt, the foremost end of the string used in winding on the socket is often passed back along the socket (in the way shown in fig. 105)) and tied on to the winding on the fore end of the shaft.

Poison is never put on the arrow-heads, but these are often provided with barbs (figs. 99—102). For bird shooting the Choroti use arrows with a club-shaped head (fig. 103), in appearance similar to those I have described from the Chiriguano. Among the Choroti, however, there are seldom seen club-like arrow-heads that have, in the centre of their striking face, a projection such as the Chiriguano arrows have (see fig. 212 and p. 209). As regards the Choroti arrows I have here reproduced, their lengths, and other particulars about them, will be seen from the appended table.

Fig. 107. Feathering of the arrow, fig. 99. 1/1.

I think I ought to mention that in ancient Indian graves in the mountain region there have been found arrows of exactly the same types as those nowadays used by the Choroti and other peoples of the Chaco.[1] These types are, however, not those that are characteristic of the mountain region, the arrows of the mountain tribes now inhabiting the area of the ancient Peruvian realm having quite a different appearance.[2]

As regards arrow heads, I wish to point out that even the most singular forms may be common to peoples that are each others' antipodes. In cases where human beings have reached much the same stage of cultural development, when they have similar needs, and access to the same sort of materials for weapons and other implements, then similar forms of implements are apt to be produced, independent of time and locality. As an example of this I may adduce that among the Esquimaux of western Greenland are to be found arrows with bone heads of exactly the same

[1] See for example Boman (4), pp. 729—730; Joyce (1), plate XXVI, fig. 4; Lehmann Nitsche (6), p. 37.
[2] See for example von Rosen (10), figs. 140—143.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

The Choroti arrows in figs. 97—106. Synoptic table.

Fig.	Head					Socket		Shafting	Shaft			Length of arrow, cm	Mode of using
	Material	Shape	Length beyond socket, cm	Length beyond shaft, cm	Arrow poison	Material	Length beyond shaft, cm		Material	Length, cm	Feathers		
97	Hard, heavy wood	Needle-like, with irregular transverse section; no barbs	—	40.1	None	—	—	Arrow-head stuck into a hole in the shaft	Reed	48.8	None	88.9	Hunting of various middle-sized game; also a war weapon
98	»	»	—	35.7	»	—	—	»	»	65	»	100.7	»
99	»	Needle-like. Section of rear portion irregular; of front portion triangular. Barbed along all three edges	—	35.9	»	—	—	»	»	75	Two, opposite each other, see fig. 107	110.9	»
100	»	Needle-like. Section of rear portion irregular; of front portion square. Barbs along two opposite edges	—	58.1	»	—	—	»	»	72.4	None	130.5	»
101	»	»	—	63.1	»	—	—	»	»	75.8	»	138.9	»
102	»	Lanceolate, two-edged. Barbs along one edge. Rear portion of irregular section	—	31.6	»	—	—	»	»	80.1	Two, opposite each other, as in fig. 107	111.7	Hunting of bigger game, such as jaguar and ostrich. War weapon for short ranges
103	»	Club-like	—	8.4	»	—	—	»	»	125.5	None	133.9	Bird-shooting
104	Thick iron wire	No barbs	—	48.1	»	—	—	Rear end of arrow-head wound to a length of 9.3 cm with waxed fibre. The wound part of the arrow-head fitted into a hole in the shaft	»	101.7	»	149.8	Hunting of various middle-sized game. War weapon
105	Iron	Lanceolate, with tang. No barbs	17.7	—	»	Hard, heavy wood	13.4	Tang fitted into a cleft in the socket. Socket fitted into a hole in the shaft	»	87.9	»	119	Hunting of larger game, such as jaguar and ostrich. A war weapon for short range
106	»		14.7	—	»	»	9.5	»	»	85.8	»	110	»

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

shape as the strange-looking Choroti arrow, which is seen in fig. 102.[1] The Esquimaux, like the Choroti, live in a bone-and-wood age, although the latter people to a large extent use the bone-hard wood of several species of Chaco trees in the place of bone. In both cases the arrows are intended for hunting big game. It is a strange thing, however, that the arrows just referred to, from Greenland and from the Chaco, are so much alike in shape that one might point to a reproduction of the Esquimaux arrow in question as being the type of a lanceolate, barbed, Choroti arrow. As to the ancient Indian arrows of Chaco type found within the Andean region, previously referred to, it is, however, not only their form that is identical with the Chaco arrows, but also the material (reed, and species of wood that do not grow in the mountain region) is typical of the Chaco. This being so, it may, with great certainty be established that the ancient Indian arrows in question really originate from the Chaco, and that we here have one of the many indications that point to old-time communication between the mountain region and the plains to the east of it.

The Choroti hunt all sorts of game, from jaguars, pumas and ostriches, to lizards and rats. Among edible game are counted, among others, also birds of prey (even vultures), foxes, armadillos, rats, lizards and snakes. On the other hand, some Choroti, at least, will not touch deer's flesh, as they believe these animals to be possessed by evil spirits.[2] Some of the species of animals just enumerated, too, are by certain individual Choroti considered dangerous to eat (see p. 114).

When the Choroti are out hunting with bow and arrow, they naturally endeavour to stalk as closely as possible up to the game, and then occasionally employ a stratagem common to many tribes who live by the chase, namely that of tying tall leafy bunches about waist and shoulders, so as to give the hunter the appearance of a bush. This stalking trick is also known to the Lengua. On this point, Grubb writes to the following effect: »The ostrich is a very wild, though stupid bird, and the hunting methods of the Lengua are based on this fact. When hunting in a palm forest, the hunter ties a few palm leaves together and fastens them to his head and shoulders, so as to resemble a small palm. By means of this disguise he has no difficulty in getting within easy range of

[1] Solberg (1), p. 73, fig. 54, bottom row of arrows, the second specimen from the left.
[2] Karsten (2), p. 33.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

the bird. And if he happens to be hunting in a district where ant-hills abound, he uses for concealment, instead, a bunch of creepers of the kinds that are growing on every termite hill. Where the country is open, and only grown with low bushes, Lengua hunters employ another trick. They close up the spaces between a large number of bushes that are more or less in a straight row, by which means a long, low, and hedge-like fence is produced. The bowmen are then posted at suitable points along the fence, and other Indians, who have been lying concealed at a distance, proceed to drive the ostriches towards it. Although the ostriches could easily jump the low fence, they are stupid enough to run along it, with the idea of finding an opening where they might get through. In that way they sooner or later get quite close to the bowmen, who are then easily able to kill them with their arrows.[1]

Fig. 108. Implement consisting of two reed splints, tied together. Said to be an imitative call instrument for decoying game into range for shooting. Choroti, Gran Chaco, Bolivia. 2/3. Riksm. 03. 3. 218.

The Choroti often decoy game by imitating the calls of various animals. The game-calls are sometimes produced by artificial means, sometimes without any instrument. Figure 108 shows an implement that, reputedly, was used for enticing game to approach within arrow range, but I have unfortunately no notes to explain the manner in which it was used. I reproduce it here, however, in the hope that some other Chaco student may be able to supply such information about it as is now lacking. The object consists of two reed splints tied together with their concave sides facing each other.

The Choroti are skilful trackers, though in this art they do not come up to the level of the game-hunting tribes I came into contact with in Africa. When I was shooting in the neighbourhood of our Tatarenda camp, I often had with me Indians who assisted me to find the game, and to recover killed or wounded animals. They then always walked in single file (»Indian file«), as seen in fig. 109.

The snares that the Choroti use consist of spun caraguatá fibre; they are mostly used for catching birds, and are arranged either as springe snares, or are placed in a forked branch like an ordinary running noose trap.[2]

[1] Grubb (1), p. 85.

[2] Nordenskiöld (17), figs. 45 and 48.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Fig. 109. Indians searching for ostriches. Choroti, Gran Chaco, Bolivia Photo. E. v. R.

[p. 100 is blank]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Fig. 110. War club, of hard, heavy wood (palo mataco. Choroti. Gran Chaco, Bolivia. 1/5. Riksm. 10. 3. 93.

As war weapons the Choroti use, beside bows and arrows, short, round-handled clubs of some very hard and heavy wood, usually palo mataco. The head and handle of the clubs is always carved in one piece (fig. 110). With these seemingly not very formidable weapons, the Indians are able — on account of the great hardness, heaviness and strength of the club material — to deal terrible blows, and they know how to use them with great skill.

In fighting their rivals, the Choroti women sometimes use knuckle-dusters of tapir hide or wood,[1] the latter being of a type identical with specimens found in ancient Indian graves in the mountain region to the west.[2] The Choroti use also bone awls as daggers. A bone awl especially suitable for a weapon is reproduced in fig. 111. It consists of the lower part of the leg-bone of a small deer; the foot serves for a handle, and the hoofs forms an excellent pommel. The weapon fits the hand very well when the thumb rests against the sole of the hoof.

Fig. 111. Awl, made out of a shank bone of a small deer. Bone awls are sometimes used as poniards. Choroti. Gran Chaco, Bolivia. 2/3. Riksm. 03. 3. 181.

For cutting up game, the Choroti use knives made of sharp-edged cane splinters. Knives and poniards, of cane, have been very extensively used in South America. Even among tribes possessing knives of stone or metal, to this day knives of cane are being used in certain ritual ceremonies. Thus Bolinder, for example, mentions that among the Ijca Indians of Northern Columbia, in childbirth the navel is cut with a cane splinter.[3]

The Choroti do not, however, possess only weapons of offence, but also weapons of defence. When on the subject on dress, I have described the mail shirts, made of closely woven, thick

[1] Nordenskiöld (11), p. 55 and 56; also (13), p. 81.
[2] von Rosen (1), pp. 203 and 204.
[3] Bolinder (1), pp. 240 and 243.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

714 caraguatá string, that are used by the Choroti as a protection against arrows (fig. 36), and have mentioned the protective abdominal rawhide belts that they put to the same use.

To many it may sound strange that mail shirts made only from vegetable fibre actually should be able to afford effective protection against arrows and other sharp-pointed, or edged, weapons. Body armour of this kind has, however, been used by many different peoples, and even as early a writer as Homer makes mention of »linen cuirasses».[1] When Herodotus makes a list of the weapons of offence and defence carried by King Xerxes' Assyrian auxiliaries, this list also includes »cuirasses made of linen».[2] Textile armour is, besides, also referred to by several ancient Greek and Roman authors. In the tales of the early history of Rome, we can read of Aulus Cornelius, a leader of Roman horse, how in battle he stripped Lars Tolumnius, the king of Vejentes, of a »linen cuirass» and solemnly dedicated it, among »spolia opima», to Jupiter Feretrius, at his temple on the Capitolium.[3] This, it must be admitted, undoubtedly points to the great esteem in which these defensive weapons must have been held. That the fibre mail shirts of the Choroti form a rather safe protection against the wood-tipped arrows that are generally used on the Chaco, is a circumstance I have already set forth.

726 411 Occasionally the Choroti make use of incendiary arrows for the purpose of setting fire to the villages of their enemies. On our way home from the Pilcomayo, in Argentine territory we passed a sugar plantation, to which Indians from different parts of the Chaco had come for work. Two tribes, between whom old enmity existed, had erected temporary villages for themselves near the plantation, and, for some reason or other, the old hostility was kindled into flame, so that it came to open fighting. The owner of the plantation told us that, on the night before our arrival, the Indians had shot incendiary arrows at each other's villages, and that by this means they had managed to set several huts on fire. We could quite believe that the scene then enacted was both terrifying and grand, with the fire-carrying arrows flying about like rockets in the night, whilst the war cries of the Indians made accompaniment to the battle.

[1] Homer (1), epic 2, verse 830.
[2] Herodotus (1), 7: 58—64, p. 473, Lindskog's translation.
[3] Neumann (1), p. 385.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

This Indian practice of setting fire to their enemies' dwellings by shooting arrows has been mentioned as early as the 16th century. Thus Schmidel, for instance, relates how the Indians in the year 1535 set the very town of Buenos Ayres on fire, by their bow-shots, so that the town was burnt to the ground.[1] 726

For choice, the Indians always try to attack their enemies by surprise. When the Indians on the Pilcomayo (Toba, and probably also Choroti) wished to annihilate Crevaux's expedition, by their at first very peacable and confidence-inspiring demeanour, they succeeded in so completely duping the members of the expedition that the latter did not take the trouble of always going about armed. Then the Indians concluded that the time was ripe for action, and at a preconcerted sign fell upon the expedition, only one of whose unsuspecting members managed to escape. According to what an old Mataco chief told me, the explorer, Ibarreta, was also treacherously killed by the Indians. Ibarreta was said to have fallen ill whilst staying among Tapiete Indians in the Pilcomayo swamps in the interior of the Chaco, and to have been killed by those Indians in his sleep.

When the Indians of the Chaco are about to embark upon some warlike enterprise, they first get up a festival of drinking and dancing, at which large quantities of algaroba beer are consumed.[2] They paint their bodies black and red, and adorn themselves with plumes and other ornaments; this is, at least partly, done as a preparation for going to fight not only earthly enemies, but also supernatural powers.[3] [302]

The Choroti take their fallen enemies' scalps, and subsequently, on special occasions, hang up the scalps in their villages;[4] they also highly prize the scalp-locks, resembling brooms or shaving-brushes (see figs. 42 and 52), that they obtain from slain foes. 727

The Chaco Indians sometimes torture their war prisoners. According to what the Bolivian soldiers at Fort Crevaux told me, the way they used to torture their prisoners was as follows. The prisoner was laid flat on his back on the ground, and his hands and feet tied to pegged-down stakes. Dry sticks were placed in a heap on the stomach of the victim,

[1] Schmidel von Straubing (1), p. 33.
[2] Nordenskiöld (13), p. 122.
[3] Karsten (2), p. 36.
[4] Nordenskiöld (13), p. 131 and 132.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

727 and this miniature pyre was set alight. The flames only rising upwards, the fire and the glowing cinders would only very slowly burn through the skin and into the stomach. It is difficult to imagine a more cruel method of torture.

721 Many of the wars waged between so-called civilized nations have owed their origin to greed of the wealth that nature produces, and among the Indians, wars may be due to the same cause. In the case of primitive

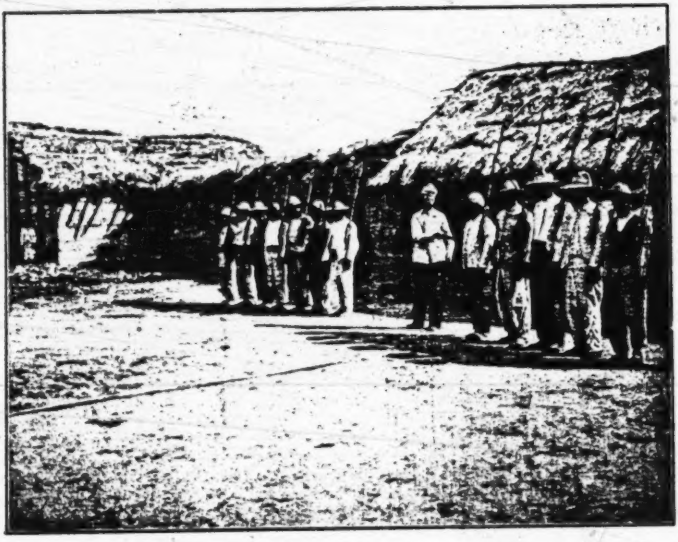

Fig. 112. Fort Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

peoples, wars are perhaps mostly a competitive struggle for food, and we may take it for granted that the fights that have taken place between the tribes on the Pilcomayo have been over the fishing in that river, so very important a matter to the Indians. It is partly for this reason, and partly because war is a hunting of human beings, that I have dealt with the war methods, and the war weapons, of the Choroti in this chapter on their means of subsistence.

226 Owing to the circumstance that the part of the Choroti tribe among which I was carrying on my studies, at the time of my stay with them,

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

had their dwellings far from any fishing water, I myself never saw these Indians engaging in fishing. As they had, however, brought with them their fishing gear (except the frameworks of their landing-nets), I succeeded in making a good collection of this kind of implement. 226

The Choroti fish with nets (using them as landing-nets), fish-hooks, and with bow and arrow. The last-mentioned fishing method, which, as far as I know, has only been observed by Moberg a Swede, is, however, only used during the latter part of the rainy season.[1]

The nets are either fastened so as to fill up the angle between two rigid poles, which are tied together by their lower ends (fig. 113), or between two supple rods, tied together at both ends (fig 114). The angle-set poles, and the rods, seem as a rule to be about 3 m in length. These fork poles and rods (dip-net frames) the Choroti had not troubled to bring with them to their dwelling site — far removed from any fishing water — in the neighbourhood of Tatarenda, and therefore my description of these implements is founded on two specimens preserved in the Gothenburg Museum, and on such photographs[2] and information as Nordenskiöld has kindly given me.[3]

When fishing, the Indians often split up into two parties, one of whom make a bar across the river with the nets that are stretched between poles (the barring-nets), which are then held so that the points of the fork rest on the bottom of the river. The other party of fishermen drives the fish towards the barring-nets, at the same time using their nets that are fixed between two rods (dip-nets) for catching fish.[4] These latter nets are used like large landing-nets, and, by means of the flexible rods, can be opened and closed. The Choroti have no water craft of any kind (not even rafts), but do their fishing swimming or wading. When fish is scarce, the Choroti block up the Pilcomayo with pole-built fences that, here and there, have openings in them. In front of these, the Indians sit on small platforms (figs. 114 and 115), and fish with dip-nets. When the weather is cold, or when fish is to be fried, fire is made on the platforms, which are isolated from the fire by means of a layer of river mud.[5] These 501 481 343 226

[1] Nordenskiöld (11), pp. 60.
[2] Nordenskiöld (18), fig. 8, 11 A, plate 14', and Karsten (2), the figure on p. 34.
[3] Letter dated 14. 7. 1931, Rockefeller collection of manuscripts, volume 1931, letter N.
[4] Nordenskiöld (18), p. 43.
[5] Nordenskiöld (18), p. 44.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6
Ashluslay SK5

C
226
343

A
[226
227]

Fig. 113. Ashluslay fishermen with barring nets. Pilcomayo. Gran Chaco, Bolivia. Sketched from a photograph by Erl. Nordenskiöld.

C
481
226

little water platforms are constructed in about the same way as the food-storing platforms, or cooking sheds, that the Choroti build on dry ground (see p. 38). The only difference is that the two horizontally placed sticks that support the platform (the roof) in the latter, are resting in natural forks formed by the top ends of the uprights (see fig. 28), whilst the two sticks that support the platforms (the floor) of the river structures rest against bindings which have been tied round two uprights driven in close together. This arrangement almost certainly aims at the possibility of raising or lowering the platform in accordance with the level of the river water. In all other respects there is very great resemblance between the platforms that are built in rivers (fig. 115) and the cooking sheds built on dry land (fig. 28). In chapter VII I have tried to show how pile structures on firm ground have inspired the idea of building similar structures in water (see pp. 192—199 and 38—47).

The Choroti are so much at home in the water that they are able, whilst swimming below the surface, to catch fish with their dip-nets.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 114. Pole-built fish fence across the Pilcomayo, with openings at intervals. On a platform in front of one of the openings a Choroti Indian is sitting, fishing with a dip-net. Gran Chaco, Bolivia. Sketched from a photograph by Erl. Nordenskiöld.

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In figs. 116 and 117 is shown a bar net of caraguatá yarn. When I, by barter, acquired this net, for the reasons already given it was not mounted on its frame, but was kept rolled up, and with its mouth drawn together (see figure), in order to take up as little room as possible. The size of the net shows that it could be extended, in a triangular shape, between the arms — about 3 m long — of a fork (see fig. 113). The yarn of which the net is made is two-ply, and has a diameter of about 1.3 mm. The meshes are square, with sides of 4 cm.

In my collection there are also nets with meshes whose sides are, respectively, 2.6 and 1.6 cm. But the Choroti have probably nets with still smaller meshes, for I have in my collection a mesh-spacer which is only 1.1 cm wide.[1] Nets that are as small-meshed as this, are suitable for catching bait for fishing with hook and line.

Fig. 115. Detail sketch of a platform of the kind seen in fig. 114. From Erl. Nordenskiöld.

The largest mesh-spacer in my collection is very nearly 4 cm wide (fig. 118), and would therefore have been used for the weaving of nets

[1] Riksm. 03. 3. 241.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

227 of the kind reproduced in figs. 116 and 117. The mesh-spacers are made of some hard, heavy wood, and usually very smoothly polished.

226 As I have said before, the Choroti also fish with hook and line, although this method of fishing is not by far as common as fishing with nets. In fig. 119 I have reproduced a fish-hook and line. The fish-hook has been made by the Choroti themselves from some awl-like tool acquired in

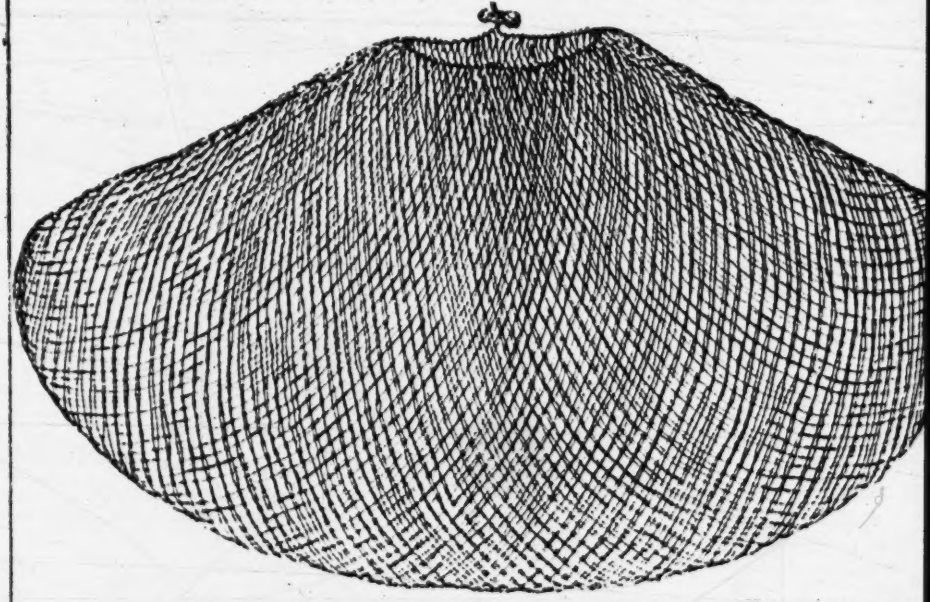

Fig. 116. Net made of caraguatá fibre yarn, for extending in a triangular shape in the way seen in fig. 113. It is here shown with its mouth drawn together, by means of a string running along its edge, so as to be more easily rolled up for transport. The meshes are quadratic, with sides 4 cm long (see fig. 117). The yarn, which is two-ply, has a diameter of about 1.5 mm. Choroti. Gran Chaco. Bolivia. 1/10. Riksm. 03. 3. 337.

some way or other from the whites. Formerly the Choroti probably used fish-hooks of bone or hard wood. Such hooks are still being used by the Lengua.[1] The line, which consists of caraguatá, is not threaded through any eye, or tied to any notches in the top of the shank of the hook, but is laid straight along the upper part of the hook, and fastened by winding on it a thinner caraguatá string. At the lower part of the hook, a caraguatá

[1] Grubb (1), p. 81.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

thread is wound on and fastened. Probably this thread,[1] was used for securing the bait so that it should not slip off the barbless hook. The line, which consists of three-ply yarn, is 4.4 m. long.

When a fish has been caught, it is killed with small, round-sectioned clubs of some hard and heavy kind of wood (fig. 120), and then strung on a cord, which, by means of a wooden needle (fig. 121), is threaded through the head of the fish, being passed through its eyes. The fish-festooned cord is carried round the fisherman's waist. This is a safe and handy way of carrying the catch whilst continuing fishing operations, swimming or wading. When a collected catch of fish is to be transported

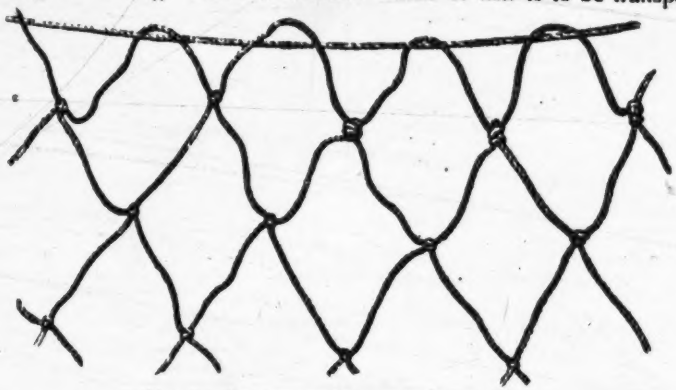

Fig. 117. Enlargement of the net in fig. 116. 2/3.

home to the village, the fish needle and cord also come in very useful. The implement here shown is from the Toba, as the Choroti specimen which I brought home (Riksm. 03. 3. 243) is now lost. The needle in the implement here reproduced probably consists of palo mataco, or quebracho, and has a length of 380 cm and a diameter of 0.5 cm. The cord, however, tapers towards the ends, its extreme points being only a few millimetres in thickness. One end of the cord is bent back so as to form a loop. Through this loop, and through the eye of the needle, a thinner caraguatá string has been passed, several turns, and with this string the loop has been wound, in the way seen in the picture. The specimen here shown is meant for carrying large-sized fish, but these implements are also to be found of much slenderer dimensions.

[1] I have no notes concerning the purpose of this thread.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

136 481 292 I have mentioned that the Choroti do not possess any water-craft, so that when fishing with nets they often have to wade or swim. In doing this, they expose themselves to being attacked by palometa fishes. As a protection for their legs in wading, the Indians occasionally wear a kind of mail stockings of caraguatá (see p. 54), but when they are swimming, they often get badly mauled by these fierce fishes, and I saw several Choroti with enormous scars from the bites of palometas (fig. 53). It also happens, now and again, that Indians, whem swimming, get killed by caymans, which, here and there, are plentiful.

[286 824]

Fig. 118. Mesh-spacer of palo santo (Bulnesia sarmienti). Length 14.9 cm, width 3.6 cm; thickness along longitudinal axis 0.6 cm. The thickness decreases towards the longer edges, which are rounded. Choroti. Gran Chaco. Bolivia. Riksm. 03. 3. 243.

222 In the collection of the fruits, roots and pith of wild plants the Choroti possess an important source of subsistence. The Chaco Indians obtain edible fruits from, inter alia, the algaroba (Prosopis alba), the chañar (Gourliea decortitans), the mistol (Zizyphus mistol) and the tusca (Acacia aroma). The rootstocks of the caraguatá, or chahuar (Bromelia serra), plant are used for food by these Indians, and the same applies to the pith of the fan palm (Copernicia australis). For pulling down within reach the fruit-bearing branches of trees, the Indians make use of wooden hooks with a short arm and a long one, the latter then serving as a handle, whilst the tree branch which is to be bent down, is hooked with the shorter arm of the implement.[1] In digging up the spiny caraguatá plants the Choroti use a forked stick.[2]

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Fig. 119. Fishing hook of iron, with line of caraguatá fibre. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 238.

Fig. 120. Fish club of palo santo (Handle upwards). Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 87.

At the time of my stay among the Choroti, the part of the tribe with whom I was in touch carried on no other agriculture than the growing of pumpkins in a primi-

[1] Nordenskiöld (11), fig. 3.
[2] Nordenskiöld (13), fig. 49.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6
Toba SI12

tive fashion, and, according to Nordenskiöld and Karsten, such agriculture as the Choroti engage in, is still on a very inconsiderable scale. Nowadays, however, these Indians cultivate — although not to any great extent — the following plants, viz.: pumpkins, cucumbers, water melons, maize, beans, manioc, sweet potatoes, tobacco and cotton.[1] Their only agricultural implements consist of digging-sticks of hard, heavy wood, and a kind of paddle-like, wooden spades. A typical digging-stick is reproduced in fig. 27.

It is probable that the Choroti originally had no other domestic animals than dogs, and the only tame animals I personally saw among this tribe were dogs and fowls. Those of the Choroti Indians who are living in the neighbourhood of the Pilcomayo possess, beside the animals mentioned, also sheep, goats, cattle, horses and cats. Sheep-rearing has now come to be of great importance to the Indians, who use the wool as material for mantles, fillets, etc.

Fig. 121. Cord on which fish are strung by means of a large needle of hard, heavy wood. This kind of carrying-gear is very common among the Choroti. The specimen here reproduced originates, however, from the Toba (neighbours of the Choroti). Gran Chaco. Bolivia. ⁰/₀. Riksm. 03. 3. 766.

As mentioned, the Choroti are a nomadic people. Their changes of location may be due to various circumstances. When pasture is exhausted in one place, they must look about for another; they move on to more profitable fishing-waters, or wander into regions that are rich in game and wild, edible plants. But there may also be other, and quite different, reasons for the Choroti's leaving their old abodes. In epidemics, when deaths are plentiful, it happens that the Choroti abandon their villages, and this they may also occasionally do if they are apprehensive of visits from whites (see pp. 47 and 48). In a first-rate monograph, Dr. Ragnar Numelin has exhaustively analyzed the causes governing the nomadic instinct in primitive peoples. As re-

[1] Nordenskiöld (11), p. 29.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

361 gards the Choroti, he, on Karsten's authority, mentions the interesting
166 fact that these Indians sometimes are compelled to make a change of dwelling-site only on account of the appearance of excessive swarms of noxious insects (principally locusts).[1]

484 It is only in later times that the Choroti to any greater extent have
464 come in to work on white men's sugar plantations. These plantations are mostly situated in Argentine territory, and therefore the Indians often have to make journeys of several weeks, in going to, or returning from, their place of work. Such Indians as go to the plantations only work for a few months for the whites, and then return to their own locations, there to spend the rest of the year in the wilds of the Chaco. Whilst at the plantations, they live in Indian villages they build for themselves, and in many ways carry on their primitive life.

166 I will also mention two other reasons for migration; now, however, only seldom obtaining among the Choroti, viz., fear of other Indian tribes and of reprisals for misdeeds committed against the whites. Concerning the latter cause for migration, I have already mentioned that a part of the Choroti tribe disappeared into the interior of the Chaco, after having in some way transgressed against white people who had settled in their country.

439 The Choroti Indians also engage in trading, and their chief article of barter is dried fish. In the Pilcomayo they are able to catch more fish than are required for their own consumption, and they therefore dry the surplus and take it to other parts, inhabited by Chiriguano and Chané, where fish is less plentiful. These latter Indians buy the fish by giving in exchange maize, red colouring-stuff (for face-painting) and other articles. Nowadays the Choroti also obtain iron, clothing, and other wares, by trading with the whites at the sugar plantations.

The snail-shell spangles that have been described in the foregoing are an important article of trade in the Chaco. The Choroti, according to their own stating, obtain spangles — separate, as well as strung into ready-made necklaces — from tribes living in the eastern Chaco. On Rio Parapiti Nordenskiöld has seen spangles of this kind among the Tapiete Indians, who told him they had got them by barter from the Ashluslay, and the latter that they, in their turn, had obtained them

[1] Nimuendajú (1), p. 35.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

from a tribe they called Manslé, said to be living in the neighbourhood of Rio Paraguay.[1] Thus the spangles of which the Tapiete were in possession had, by way of trade between the tribes, been transported *at least* 360 miles from the place where they had been made.

Among the Choroti, the long spangle necklaces (as seen in fig. 56) served them as a kind of currency. So, for instance, the value of an Indian woollen mantle was expressed in a certain number of arm-lengths of such a necklace, and that of a head of cattle in some other, definite, number of arm-lengths. In gambling, the stake often consisted of snail-shell spangles or whole necklaces.

There were also other objects which formed articles of trade between the Indians. On page 81 I have mentioned a wooden comb which probably originates from the Chiriguano, and on page 78 I have reproduced a small wooden bowl containing colouring seeds that have probably come from the same tribe. The child's poncho, fig. 35, has probably been bought by some Choroti from an Ashluslay; it is also possible that a few other objects in my collection have found their way to the Choroti Indians through barter with neighbouring tribes.

[1] Nordenskiöld (13), p. 127.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

CHAPTER IV.

The Choroti (4). Food and drink. Household furniture.

Game used for food. Different ways of preparing, serving and eating the food. Preserving food. Salt. Water. Earthenware vessels. Bottles, boxes, dippers and spoons, made out of calabash shell. Wooden food dishes and spoons. Baskets. Large-sized bags of caraguatá fibre yarn. Carrying-nets. Men's handbags of caraguatá and wood. Cactus spines used as »Knitting needles». Distaffs. Weaving. Bast ropes. Knives, of iron, wood, and cane. Jaws of fishes, used as knives. Mussel-shell scrapers. Wooden saws. Bone awls. Fire-drilling.

262 Whilst on the subject of the hunting methods of the Choroti, I stated that those Indians look upon almost any kind of wild animal as being eatable, and that they even eat such, from a food point-of view, repulsive animals as foxes, rats, vultures, owls, lizards and snakes. Certain insects, too, e. g., the larvae of a large beetle, and locusts, are used as food. The eating of foxes and vultures is not, however, practised by all Choroti. Nordenskiöld, for instance, says that foxes are by the Choroti considered useless for human food,[1] whilst Karsten numbers the fox among such animals as are eaten.[2] The latter, however, adds that vultures, owls and foxes are only eaten by elderly people who may be considered versed in the art of laying evil spirits. Therefore in the case of the Choroti, it would seem as, if the question of the edibility of any particular animal were largely dependent upon magical conceptions, so that anyone who is an expert exorcist may safely indulge in the eating of the flesh of any wild animal (see p. 97).

252 Meat may be roasted paled on skewers, or broiled on hot embers, or it may be boiled, and smaller animals, such as lizards, snakes and rats, are placed in the ashes that are on top of the glowing coals, without

[1] Nordenskiöld (13), p. 53.
[2] Karsten (2), p. 38.

[p. 114]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

skinning or gutting, and are usually eaten with entrails, excrement and all. When the Choroti eat the entrails of larger animals, they do not first rinse them out, but are, at best, content with squeezing out the contents. Nordenskiöld has seen them eating intestinal contents as spinach together with the meat.[1] Fish is grilled, either by being laid on glowing embers, or tied between two sticks stuck into the ground by the fireplace.

As servers for food are used bowls of clay, wood, or calabash shell, or merely large, fresh leaves.

In foregoing chapters I have given the names of such plants, wild as well as cultivated, as are of importance in the food supply of the Choroti. Vegetables are eaten raw, boiled, roasted or dried. The Choroti, like other Chaco tribes, eat the fruits of the algaroba, and other similar fruits, in the following, rather original way. The raw fruits are put into a large wooden mortar (fig. 122), and there pounded up. The pulp is put into a calabash bowl, where it is stirred up with water, and the dish is then ready for eating. Those who are about to partake, squat down around the bowl, and each individual helps himself with his bare hand to the pulpy mass, which he puts into his mouth, chews and sucks, whereupon he spits his mouthful of mush back into the bowl. Another mouthful is taken, and in due course spat out, and so on. This is repeated by all the participants of the meal until all the sweet and nutritious components of the mess have been used up. What a bowl of »fruit cheese» is like, after half-a-dozen Indians have been eating and spitting for a while, the reader may possibly picture to himself, by the aid of his imagination.

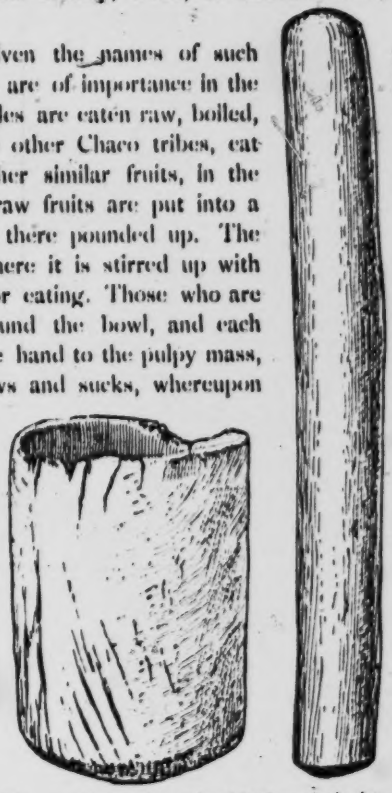

Fig. 122. Mortar and pestle of hard wood; the latter consisting of palo santo. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 155 and 03. 3. 157.

In another work of mine I have said that the Choroti eat the *fruits*

[1] Nordenskiöld (18), p. 53.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

114 of the chaguar (chahuar).[1] This statement, which is erroneous, is due to
262 the similarity of sound existing between chaguar[2] and chañar.[3] The *fruits* of the latter are eaten by the Indians, whilst of the former only the rootstock is edible.

251 By drying, the Choroti preserve vegetables against seasons of shortened food supply.

263 Personally I have not seen the Choroti use salt, but, nevertheless, they possess this condiment. Possibly they, like the Lengua, extract salt from the ash of a plant growing on the Chaco.[4] Salt-making from vegetable ash is known to many primitive peoples.[5]

264 Among the Choroti I never saw men and women eating together.

[462] 515 252 The preparing of food is, as a rule, the work of the women. The Choroti are not dainty about their food, and the uncleanliness which is a distinguishing trait in culinary matters among these Indians surpasses almost anything I have ever observed among other primitive peoples, with the exception of the Mataco Indians. Of the latter, however, my experience is limited to only a few families, and it may be unfair to judge the whole tribes from those.

271 Water, often muddy, ordinarily forms the drink of the Choroti. When in the dry season the Indians are on the move, or from some reason or other find themselves far away from any river, they sometimes suffer very badly from lack of water.

273 In the season for harvesting wild fruits, such as algaroba, tusca, and chañar, an intoxicating fruit beer is brewed. During the time of year that I visited the Choroti, there were no fruits of which any intoxicating beverage could be brewed; consequently I never had an opportunity of observing either the brewing of beer, or any drinking carousal. This led me to suppose that the art of brewing fermented liquor was unknown to the Choroti. Nowadays the Choroti have learnt from the Chiriguano also how to brew maize beer. Of the Choroti method of beer-brewing, Nordenskiöld has given the following description:

»When tusca beer is to be made, the fruit is first of all ground, and they water added, the whole being thereupon left in a dirty animal hide,

[1] von Rosen (3), p. 9.
[2] Bromelia serra.
[3] Gourliea decorticans.
[4] Hawtrey (1), p. 287.
[5] For one method of producing salt from plants, see von Rosen (4), p. 240.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

or large calabashes, to ferment. One certain night, I was present at a 273
beer-fermenting in a Choroti village. Proceedings commenced by two men sitting in the men's club house on either side of the fire, singing, with their backs to each other, and beating time with calabash rattles. After a while they continued this round about the hide in which the brew was fermenting. A man and a youth were singing, accompanied by a rattle, turning their faces up to the moon. Elsewhere, here and there, other men were bawling and plying rattles. Then the earthenware drum was brought

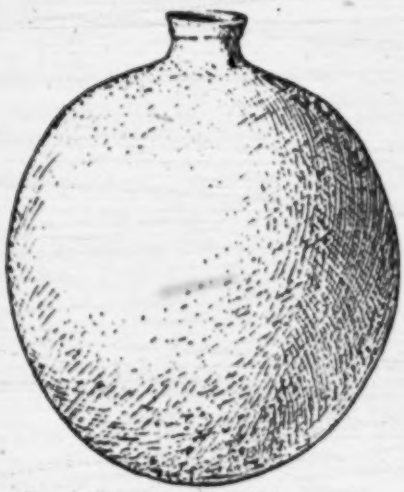

Fig. 133. Water pitcher. Yellowish brown earthenware. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 145.

Fig. 134. Water pitcher with carrying cord of caraguatá. Reddish-brown earthenware. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 146.

[415 482]

out, and placed on a ring formed of straw. Monotonous drum beats thereupon gave accompaniment to the singing. This stopped about midnight, and there was a rush down to the river where some fishing was done, with a fairly good result. The fish was then grilled and eaten. This night supper having been satisfactorily discussed, singing was resumed and went on, supported by one drum and four rattles. The songs seemed to me to consist of nothing but refrains, something like: 'huh, huh, huh, huh, huh, lah eh lah, huh, lah eh lah, . . . huh, huh, huh, lah eh lah'. The singing was at first low, then suddenly rising in loudness, then again subsiding low. Many were raucously bellowing in unison. When one lot

273 of singers were tired out, others took their turn. In the morning there was some more fishing, and for breakfast was drunk the tusca beer that had been made with so much trouble, after having been strained through a dirty bag, and served up in calabash bowls. The Choroti believe that by singing they hasten the fermentation of the beer.

The tusca beer is of an acidulous, refreshing taste, but has a sickly smell.

The fruits of the chañar are boiled, whereupon the mixture is allowed to ferment.

The fruits of the algaroba are ground, and warmed up in water, then, like the foregoing, the brew is left to ferment in huge, filthy, calabashes, or in very large troughs of the wood of the bottle-tree.[1] I have seen the Ashluslay preparing yeast by chewing part of the ground algaroba, and then spitting it out into the rest. Chañar beer is of a sour-sweet, somewhat nauseous, taste; algaroba beer is good. The latter has a sweet, somewhat astringent, taste. When long fermented, it is highly intoxicating. Maize beer I have seen brewed here. It is especially well known to a great many tribes in South America. It has a pleasant and refreshing taste.»[2]

271 When, during their wanderings, the Indians of the Chaco do not come across any rivers, lagoons or wells, and thus find themselves threatened by a lack of water, they collect the water that, after rain, has gathered at the base of the leaves of the caraguatá plant, where it will keep fresh for many weeks.[3]

271 [415] 482 The Choroti fetch and keep water in large, oval, sometimes spherical, earthenware vessels. When these vessels, like the one reproduced in fig. 123, are without handles, they are carried on the back by means of a caraguata net, the carrying cord of which is either placed across the forehead or across the chest. Water pitchers are, however, as a rule provided with two vertically placed handles, and also a shallow groove which runs through the latter, the whole being designed to give a hold to the carrying cord (see fig. 124). The cord is rested across the forehead

[1] Chorisia insignis.

[2] Nordenskiöld (13), pp. 89—91.

[3] Professor von den Steinen writes of the Chaco Indians of northern Chaco that they collect water from the caraguatá »in denen sich auf dem Grunde des Blätterkranzes das Regenwasser ansammelt und Monate lang verhältnismässig frisch erhält» von den Steinen (1), p. 326. See also Grubb (1), pp. 95 and 96.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

or chest of the water carrier.[1] When the pitcher has been filled with water, its mouth is closed with a stopper of grass or leaves.

The cooking pots, which consist of burnt clay (figs. 125 and 126), are also used for roasting various vegetables. Pots of this kind from the Choroti are sometimes given wart-like decorations. These are either placed in rows some distance apart from each other (fig. 125) or in rows close together (fig. 126). This manner of ornamenting clay pots is of extreme antiquity in the New World, and occurs on grave finds right up through North America.[2] The little protuberances on the pot in fig. 125 have been produced in a different way to those on the handleless pot in fig.

Fig. 125. Cooking and roasting pot of earthenware burnt black. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 150.

Fig. 126. Cooking and roasting pot of earthenware burnt black. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 10. 3. 54.

126. On the case of the former, they consist of small clay pellets which have been stuck on the pot before burning, whilst the protuberances on the latter probably have been pressed up out of the wet clay by the potters fingers.

All pottery is made by women. The clay is mixed with powdered potsherds, then well kneaded and formed with the hands into rolls, as thick as a finger, with which the pot is built up.[3] When this has been completed as to its shape, its surface is polished by means of a mussel shell or a

[1] Water-drawing and carrying is exclusively a work for women.

[2] See, for example, Holmes (1), pl. XI, fig. g, and Moore (3), fig. 42.

[3] Cf. figs. 217 and p. 214. On the subject of Indian pottery-making, see for example Holmes (1), and Nordenskiöld (19).

323 smooth wooden stick, and, if desired, the above mentioned wart-like
[531] ornaments are then put on. Painted clay vessels are not found among the Choroti.

415 For holding water, beer, and other fluids, the Choroti use not only
531 clay vessels but also calabash bottles. Small calabash bottles (figs. 127 and 128) are used for keeping toilet articles, such as colour seeds, beads, and other things. Such articles are also kept in boxes of calabash (fig. 129). Flour is kept in large calabash boxes (fig. 130). Of calabash shell are also made bowls or dippers (fig. 131), and spoons (fig. 132).

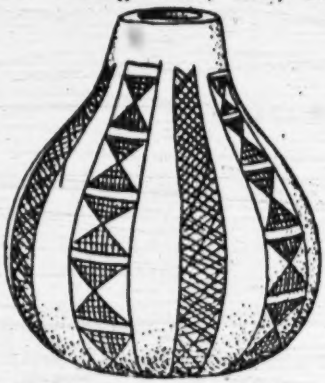

Fig. 127. Calabash bottle with incised ornament. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 173.

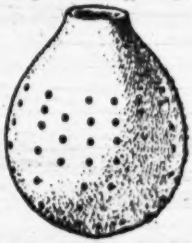

Fig. 128. Calabash bottle inlaid with turquoise coloured glass beads. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 175.

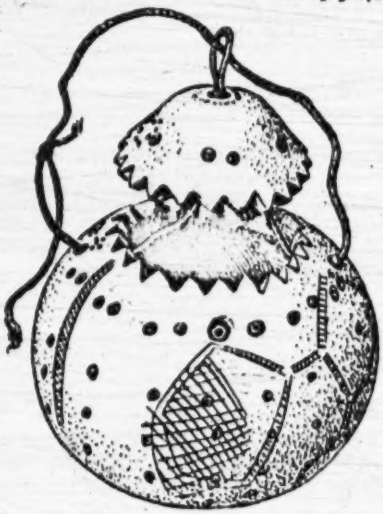

Fig. 129. Calabash box, inlaid with glass beads, and with carved ornament. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 67.

Fig. 130. Calabash box with carved ornament. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 176.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Bottles, boxes, bowls, dippers and spoons, of calabash, are often ornamented in some way or other. Small calabashes (figs. 128 and 129) for toilet articles are inlaid with beads, and on the latter there is also carved ornamentation. The bottle (fig. 127) and the box (fig. 130) have likewise been decorated by carving, but the ornamentation on the dipper (fig. 131) has been produced by burning. Occasionally ornamentation of calabashes has been effected both by carving and burning, an example of such composite technique being the spoon in fig. 132. The ornamentation is sometimes regularly arranged, figs. 127 and 132, but it often seems to have been placed without any plan whatever, as in figs. 129 and 131. According to investigations by Nordenskiöld and Karsten, the latter kind of ornamentation may not infrequently possess an especial significance; representations of human beings, animals, roads, fields, forests, and so on,[1] and its purpose is probably not only decorative but also magical.[2]

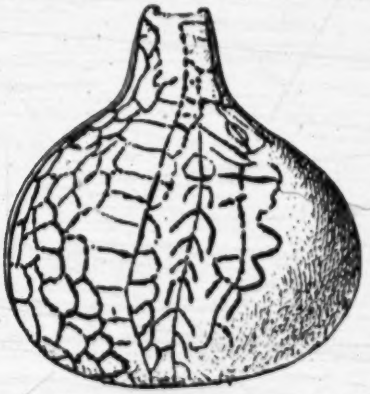

Fig. 131. Dipper, of calabash, with ornament burnt in. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 164.

Fig. 132. Ladle, of calabash, with ornament both carved and burnt in. In the figure, the latter are shaded. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 166.

Many primitive peoples, in the Old World as in the New, use mussel-shells for spoons. The Choroti have spoons consisting of one of the halves

[1] Cf. Nordenskiöld (13), figs. 62 and 63.
[2] Karsten (3), p. 179.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

415 of a river mussel (fig. 133). These mussel shell spoons are seldom as large as the specimen here reproduced, which has a length of 14 cm.

I have seen neither food dishes nor spoons, made of wood, among the Choroti, but nowadays, at least, such are used by them.[1]

285 415 Among the Choroti I saw only one single piece of basket work (fig. 134). It consists of a small basket of the same shape as a kind of pot, which is common in the Chaco (see cooking pot in fig. 192), and it is probably only a direct copy, made in sport, of a clay pot; otherwise, basketry is unknown to the Choroti, and it is therefore probable that the object in question has either found its way to these Indians from the Chiriguano, or that some Choroti, having seen basket-weaving in a Chiriguano village at some passing visit, subsequently has attempted to produce, some similar work himself. It should be noted that the weaving technique in the basket here reproduced is the same as the one used by the Chiriguano.

Fig. 133. Spoon, consisting of a mussel-shell. Choroti. Gran Chaco, Bolivia. 1/2. Riksm. 03. 3. 167.

[7]

286 415 The Choroti keep no inconsiderable part of their goods and chattels in large, nearly oval, knitted bags of caraguatá yarn (figs. 135 and 136). These bags are especially useful when the tribe is journeying or migrating. They are carried by the women in such a way that the tape or string within the ends of the bag is placed across the forehead, whilst the bag rests against the carrier's back. The carrying cord over the forehead keeps the bag from slipping down the back. For carrying water pitchers and other vessels of earthenware or calabash, the Choroti use carrying nets. On page 118 I have described the way in which these are used.

[285] [482]

Fig. 134. Basket, Choroti(?). Gran Chaco, Bolivia. 1/2. Riksm. 03. 3. 144.

For everyday use the men have a kind of

[1] Nordenskiöld (11), pp. 86—90.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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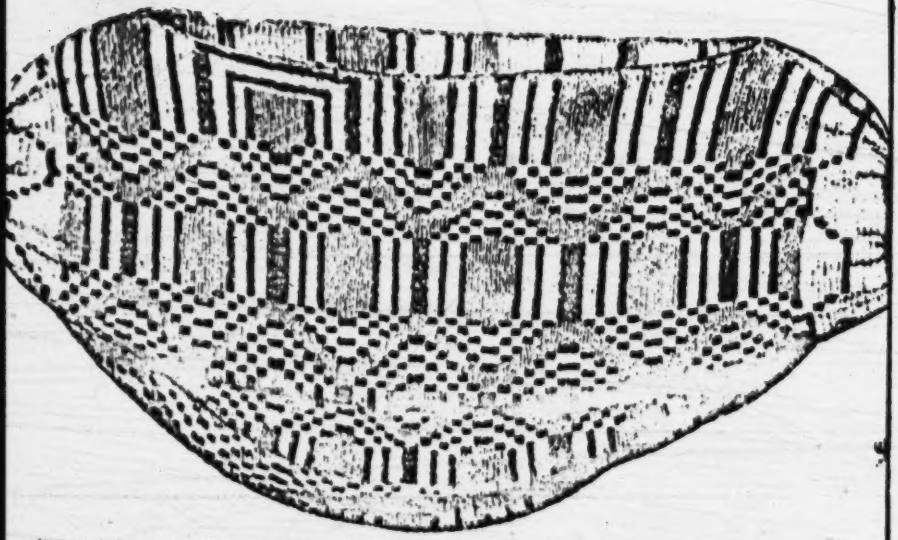

Fig. 135. Large bag, knitted of brown, black and yellowish white (natural colour) caraguatá fibre yarn. Choroti. Gran Chaco, Bolivia. 9/10. Riksm. 03. 3. 134.

smaller caraguatá bags of the shape seen in figs. 137 and 138. These bags are carried by a string or narrow strap laid over the shoulder (see the man with a bow, fig. 96) or tied to the belt, and in them are kept a variety of articles that the Choroti men always like to have about them, such as fire-drilling sticks, tinder boxes, awls for blood-letting, colours for painting of the face, etc.

[482]

The caraguatá yarn is spun, without the aid of a spindle, only by twisting the fibres (of Bromelia serra) against the thigh with the flat of the hand. Some of the yarn is dyed with vegetable dyestuffs in order to produce variegated patterns in the knitting (see figs. 135—139). For the knitting, eyed needles of hard wood (fig. 140) are used. Similar needles of wood or bone are also used for sewing. Among the Choroti I have seen men's bags which had been knitted of woollen-yarn with long cactus spines, used as knitting needles (fig. 141). The woollen-yarn bag here reproduced is ornamented with red, brown and grey

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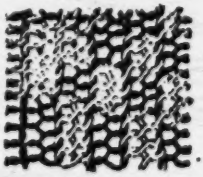

Fig. 136. Enlargement of the knitting of the bag in fig. 135.

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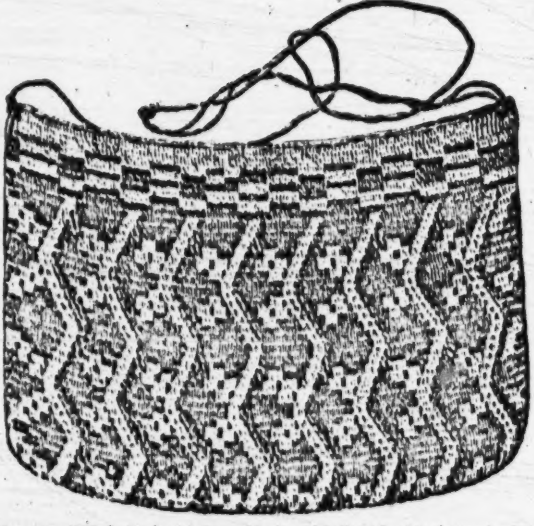

Fig. 137. Bag, knitted of brown, black and yellowish-white (natural colour) caraguata fibre yarn. Carrying strap of rawhide, twined together. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 110.

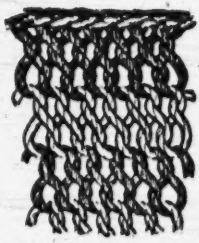

Fig. 139. Enlargement of the knitting of the bag in fig. 138. Twice enlarged.

Fig. 138. Bag, knitted of brown, black and yellowish white (natural colour) caraguata fibre yarn. Choroti, Gran Chaco, Bolivia. 1/3. Riksm. 03. 3. 123.

Fig. 140. Knitting needle, of wood. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 143 b.

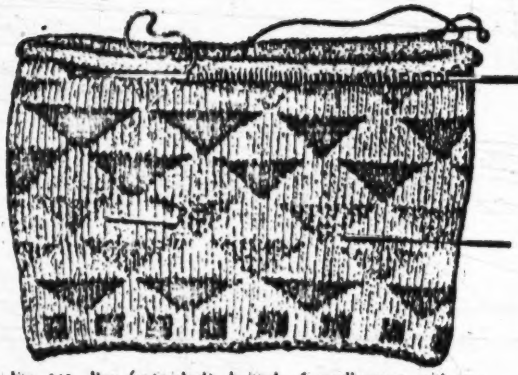

Fig. 141. Bag (unfinished), knitted of woollen-yarn, with two cactus spines used as knitting needles. The pattern consists of red, brown and grey triangles and squares on a greyish-white ground. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 143.

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Fig. 142. Distaff, with wooden spindle and a spherical whorl consisting of the hard shell of a fruit. Left-spun cotton yarn is wound on the spindle, near its middle. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 10. 3. 51.

Fig. 143. Distaff, with wooden spindle, and a plano-convex whorl of bone. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 140.

triangles and squares on greyish-white ground. It is probable that the Choroti have learnt the art of knitting through having been in contact with more cultured tribes.

From their herds of sheep the Choroti obtain all the wool they need for manufacturing mantles, loin cloths, ponchos, fillets, bags, etc. Wool, as well as cotton, is spun with distaffs of the Bakairi type[1] (figs. 142 and 143). The spindles of the distaffs are of wood, with a small knob at the top end for fixing the wool. The spindle is always thinnest at the upper end, and increases in thickness downwards, attaining its greatest thickness not far from its bottom end. The spindle whorls consist of various materials, such as fruit rinds, bone, earthenware, etc. I have even obtained a Choroti distaff with a stone whorl (Riksm. 10. 3. 50), although this is a material which is extremely rare on the

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[1] For South American spinning implements and their classification see Frödin and Nordenskiöld (1). 10*. — *v. Rosen.* II.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

283 Chaco, a circumstance I have pointed out in the foregoing. At its thickest part, the diameter of the spindle should be somewhat larger than the diameter of the hole through the whorl. The thinner end of the spindle is passed through this hole, and the whorl is then slid downwards until it gets fixed on account of the thickness of the spindle (see fig. 143). If the hole has happened to have been made too large, so that the whorl would slip off, the thickness of the spindle immediately below the whorl is increased by the application of a heavily waxed binding (see fig. 142).

Fig. 144. Knife-like weaving implement (batten) of hard wood Choroti, Gran Chaco, Bolivia. S:s. Riksm. 10. 3. 91.

286 Personally I have not seen the Choroti do any weaving, but from this tribe Nordenskiöld has described a very primitive method of fillet weaving: »For a loom, the woman used her own body; the fillet she was weaving was fastened to her big toe, and her hand she used as a batten. In this way she was weaving the fillet without using any other implement than her extremities.»[1]

For all that, the Chorotis[a] do possess weaving implements, which, among other things, is evident from the weaving batten reproduced in fig. 144. It is carved in one piece out of some hard, heavy wood. The transverse section of the handle is oval, and the blade has two rounded edges.

283 The Choroti make excellent ropes of bast (fig. 145), by twining. One such rope, which I bartered off them, is 11.74 metres in length. At one end of it there is a running noose, and it has probably been used as a lasso.

412 439 At the time when I visited the Chaco, iron was still of such rarity that it was but seldom I saw ~~an iron~~ knife among the Choroti. We had brought with us, as articles for bartering, long, Argentine knives, and with them the Indians were highly delighted. These knives were not used by the Choroti for carving wood with, but principally as carving instruments in cutting up meat.

412 The Choroti knife, which is reproduced in fig. 146, is a very primitive tool, with a one-edged blade, about 1.5 mm thick, of untempered sheet-iron. The upper part of the blade is wedged into a partly cleft wooden handle, which is covered

[1] Nordenskiöld (13), p. 111.

a [should be Chorotis. -Analyst]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

with the tail skin of a lizard. The blade and handle form an obtuse angle, and the edge has been ground on the outer side of the angle. This peculiar shape of knife corresponds to the shape of wooden knives that have been found in ancient Indian graves on Puna de Jujuy and in Quebrada del Toro.[1]

Fig. 145. Rope, of bast. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 244.

Fig. 146. Knife[2] with one-edged blade of soft iron, and handle of wood, covered with lizard skin. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 189.

Fig. 147. Awl, consisting of the right ulna of some large feline, probably puma. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 183.

The Choroti also use wooden knives, resembling broad-bladed chisels.[2] Knives of this shape, which the Choroti now also make of iron, are principally used for cutting up fish, or for opening and dividing pumpkins, water melons, and other kinds of fruit. For cutting up meat, sharp-edged cane splinters, or — and nowadays most generally — iron knives, are used. As I have previously mentioned, the Choroti also use the sharp-toothed jawbones of the palometa fish (Serrosalmo sp.), as knives for hair-cutting, fig. 84.

[1] See, for example, von Rosen (10), figs. 59, 127—131.

[2] Nordenskiöld (11), figs. 12 and 13.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6
Mataco S17

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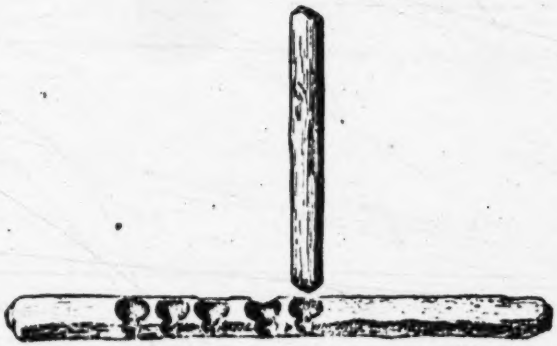

Fig. 148. Fire-drilling implement, consisting of two wooden sticks. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 193.

For scraping and polishing wooden objects, pieces of mussel-shell are used. Formerly, when the Choroti could not obtain iron, all wood-work was produced exclusively by means of fire and mussel-shells. In shaping a piece of wood, the parts that were to come away were burnt in the fire, and the charred parts then scraped off with a sharp-edged piece of mussel-shell.

Nordenskiöld mentions that the Choroti, in the same way as other Chaco tribes, use saws made of hard wood with which they, among other things, saw off the stem and leaves of the, to the Indians so important, caraguatá plant,[1] after having grubbed it up with a fork-like digging stick.

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Fig. 149. Stems of a liana (Asclepiadaceæ), which forms the material of which fire-drilling implements of the Choroti generally are made. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 196.

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Awls for working purposes are made of bone (fig. 147). Bone awls are also used for tattooing (see p. 75, 78), magical blood-letting (see pp. 63 and 64), and as weapons of offence (see p. 101).

Like other Chaco tribes, the Choroti produce fire by drilling. Their fire-kindling implement consists of two round-sectioned, dry sticks of wood (fig. 148), usually obtained from a species of liana (of the Asclepiadaceæ), fig. 149. One stick (the female one), which is thicker, and usually longer, than the other one (the male stick), has one or more bowl-shaped indentations, at

Fig. 150. Tail of armadillo, used as a tinder box, Mataco. Gran Chaco. Argentina. Exactly similar tinder boxes are used by the Choroti. 2/3. Riksm. 03. 3. 572.

[1] Nordenskiöld (11), pp. 65 and 66, also (12), pp. 110 and 111.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 151. A Choroti man producing fire by drilling. Gran Chaco. Bolivia. Photo. E. v. R.

[p. 130 is blank]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

the edge of which a groove has been made (see fig. 148). These indentations are of a diameter roughly corresponding to that of the male stick. 372

When about to produce fire by drilling, a Choroti first pulls the head out of one of his arrows, and fits in its place the male fire-stick into the arrow-head hole of the arrow shaft. Then he spreads on the ground a thick, dry leaf, or a piece of skin or cloth. On this underlay he places the female stick, indentations upwards. In front of one of the indentations he puts a pinch or so of tinder consisting of charred caraguatá fibres, which he takes out of a tinder box which may be the tip of a deer antler or the scaly tail skin of an armadillo, fig. 150. He then sits down on the ground, in a squatting position, gets a firm pressure with his left foot on the female stick, carefully places the male stick, that is fixed in the arrow-shaft, into one of the indentations in the other stick, and twirls the arrow-shaft vigorously between his palms (see fig. 151). He starts the twirling at the upper end of the shaft, but as he, at the same time, exercises a downward pressure, his hands by degrees slide groundwards, and therefore he has, with a lightning-quick movement, to shift his hands, now and again, to the top.

The friction between the male and the female stick grinds the wood into a fine powder, which very soon begins to smoulder, as will be noticed from the smoke then rising from the drill hole. The glowing wood powder makes its way along the groove at the edge of the hole and on to the tinder, which also soon begins to glow. Dry grass is put on top of the tinder, and this is blown on until the grass catches fire.

This method of producing fire undoubtedly sounds very laborious, but it is remarkable how quickly the Choroti are able to kindle a flame, if only the sticks, tinder and grass are thoroughly dry. Once I have seen a Choroti drill fire in 30 seconds, and on many occasions I have witnessed how South American, as well as African, natives succeeded in producing fire in less than one minute by drilling.[1]

If the weather is damp, or if the fire-kindling implements are not quite dry, it is of course fairly difficult to drill for fire. Then the best plan is to have an assistant who begins the twirling at the top end of the arrow-shaft as soon as one's own hands have slid down towards the ground. When the hands of the helper are at the low position, one starts again

[1] Cf. von Rosen (4), pp. 241–245, plate 75.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

372 at the top, and by thus taking it by turns, the male stick is kept in continuous motion, until the wood powder begins to glow.

It is the work of the men to kindle the fire by drilling, but the women are charged with the responsibility of seeing that it does not go out unnecessarily. In order to keep cinders glowing during the night, or at other times when a flame on the hearth is not required, the women place on top of the fire dry, decayed tree stumps, which they cover with ashes, by means of which the stumps keep smouldering for a very long time. It is then easy, when required, to produce a flame by blowing [415] on, or fanning, the cinders. The fire-fan consists of feathers. Fig. 152 shows a young Choroti girl whilst carrying out her vestal duty of preserving a fire.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 152. A Choroti girl who has put decayed tree stumps on top of the fire in order to preserve it until again needed. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

CHAPTER V.

The Choroti (5). Narcotics and Intoxicants. Games and amusements.

Different kinds of beer. Drinking customs. Tobacco-smoking. Flutes and whistles. Trumpets. Music bows. Drums and drumsticks. Rattles. Dancing. Gambling games. Various kinds of ball games. Toys. Pastimes.

Beer and tobacco form the intoxicants and narcotics in which the 273
Choroti indulge.

As I have pointed out in the foregoing, I never had an opportunity of witnessing how the Choroti brew their intoxicating beverages, which they prepare from divers kinds of wild fruit. During the time of my visit to the tribe, such wild fruits were not ripe, so the Indians were reduced to drinking water, more or less muddy. Had my visit coincided with the fruit-harvesting season, then I should have seen that the Choroti are great lovers of beer. Baron Nordenskiöld, who is thoroughly conversant with the beverages and the drinking customs of the Choroti, has shown that the beers that these Indians make from tusca, chañar and maize are tolerably innocent, whilst, on the other hand, algaroba beer is strongly alcoholic, owing to the algaroba fruit being very rich in sugar.[1] The Choroti also make beer out of water melon, but in the literature I have not seen any statement as to the intoxicating properties of water melon beer.

The Choroti's drinking customs Nordenskiöld describes as follows: »During the months of November and December, when the fruit of the algaroba is ripe, there are in consequence in the villages of the Choroti mad drinking carousals, daily orgies, in which the hapless ethnographer

[1] Nordenskiöld (18), p. 89.

[p. 135]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

273 has to take part if he wishes to keep on good terms with the Indians. — ›Among the Ashluslay I have taken a hand in several large-scale drinking carousals, and among the Choroti in some smaller ones. It proved an interesting experience, but it required a great deal of fortitude to be able to go through with it. In most villages there is a special [361] place set apart for drinking. There the men begin to foregather about noon, each man bringing his sitting mat and his calabash bowl of a capacity of two to three litres. Huge calabashes of beer are brought by the women. Sometimes the beer is decanted into a large earthenware vessel, out of which it is served. At a festivity where old man Aslù was the host, algaroba beer was handed round to the guests in a genuine European night-chamber, of well-known shape. [276] What lees or dregs there may be in the beer receptacle, the partakers simply fish out with their hands, and then strain between their filthy fingers.

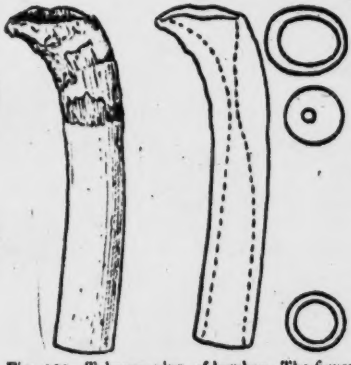

Fig. 153. Tobacco pipe of bamboo. The figure shows the mouthpiece turned downwards. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 228.

[574 576] ›A guest, especially if he has the misfortune of being very popular, is very well treated. He is provided with a sitting mat and a calabash holding two or three litres. When he sits down, all wave to him with the flat of the hand, and he must make a similar response. That constitutes the greeting of welcome. After that, it is a matter of drinking, for here the motto is 'no heeltaps', and one must not be uncivil. When one has managed to get a litre down, without throwing it some more the palm-waving is done. The old men sitting next to one, draw their more or less dirty fingers across one's mouth. This is the height of friendliness. If, after all this, one has to run away for a moment, one must by no means forget to wave the hand to one's neighbours and say 'paa', for if not, one is exceedingly unmannerly. The worst of it is that one must come back, and hold out, right through the feast even, whilst one's hosts are drunk and yelling, making speeches, spitting in the festive bowl, and generally feeling them- [276] selves good and hearty. Without giving a wipe to the pipe-stem, one has to smoke, turn and turn about, with dirty, slavering, old men.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

»When the old men have felt themselves properly tuned up, then they have painted my face black with soot and spittle. They have wanted to pull out my eyebrows and eyelashes, and they have laughed my long and ugly beard to scorn, and they have wanted to bore through my ears.

»All during these drinking carousals, when everybody was drunk, I have never heard a hard word spoken; never noticed the slightest quarrel arising. When the Indian is full of his home-brewed beer, he is not pleasant, but he does not get insolent; he belongs to the type of drunkard who wants to embrace everybody, and in whom the manifestations of friendliness become unpleasantly exaggerated. He gets blatantly valiant, and shouts about warlike deeds. He discusses plans of campaigns, but has forgotten all about it when he is sober again. He sings and he is happy.«[1]

The Choroti Indians are inveterate smokers. As the tobacco which these Indians grow and prepare is of a very inferior quality, they are keen on bartering tobacco off the whites. Frequently the Choroti mix their tobacco with shavings of an aromatic tree bark.[2]

Tobacco pipes consist of pieces of bamboo, fig. 153, or wood, figs. 154—161. The latter are straight, that is to say, the longitudinal axis of the tobacco retainer is in a straight line with the longitudinal axis of the stem.[3] The pipes of bamboo are straight, or of a slightly curving bend, fig. 153. Choroti pipes are as a rule made in one piece, figs. 153—161, but composite pipes (pipes with the stem fitted into the bowl) do occur, although they are exceedingly rare.[4]

The pipes have in the forward end, as a rule, a funnel-shaped depression in which the tobacco is stuffed (the tobacco retainer). From the bottom of the funnel the smoke passes through a channel, the diameter of which is only a couple of millimetres in the part nearest the tobacco retainer but usually widens towards the opening of the mouthpiece (see sections, figs. 153—161). In pipes with a wide mouthpiece opening, the latter as a rule is provided with a vegetable fibre filter, which cleanses

[1] Nordenskiöld (13), pp. 89, 91 and 92.

[2] As to Indian conceptions of intoxicating beverages, tobacco and other narcotics, see for example Karsten (6), pp. 28—72.

[3] The Ashluslay, neighbours of the Choroti, possess both straight and angle-bent pipes. In the Ashluslay pipes of the latter kind the longitudinal axis of the tobacco retainer and that of the stem form an angle of about 90 degrees. Nordenskiöld (13), figs. 41—43.

[4] A composite pipe from the Choroti is reproduced and described by Nordenskiöld (21), fig. 8.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

276 the smoke of tobacco oil. Wooden pipes are often decorated with burnt-in
[531] ornament (figs. 155—157 and 159—161), or, once in a while, with carved ornamentation (fig. 161), or mountings of tin.

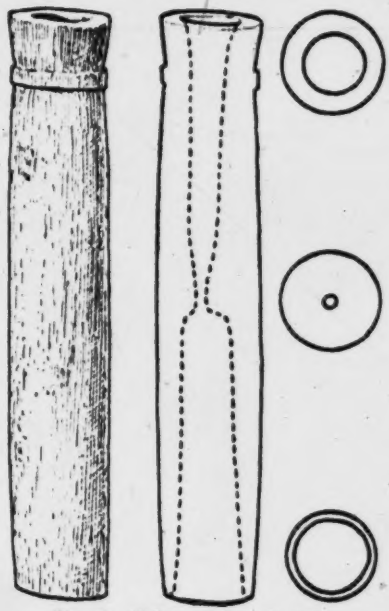

Fig. 154. Yellow wood. 03. 3. 219.

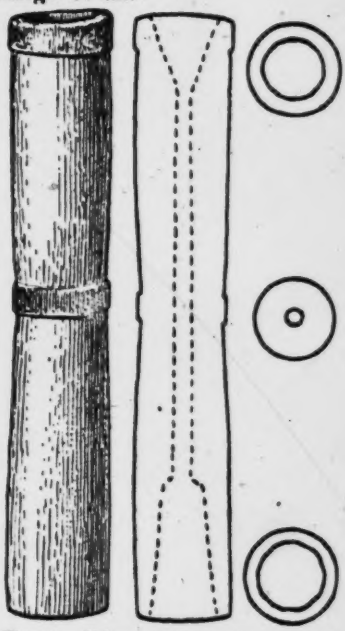

Fig. 155. Yellow wood; the rings carved in relief are coloured dark by burning. 03. 3. 224.

Tobacco pipes of wood. Choroti. Gran Chaco, Bolivia. 2/3. Riksm.

The straight type of pipe much resembles our modern cigar holders, but is nevertheless an ancient American cultural element. Straight tobacco pipes are found in widely separated parts of the New World, and in archæological excavations in North America, pipes of this kind have been found of burnt clay, among other materials, which probably are pre-Columbian.[1]

276 The Choroti Indians never smoke whilst working, or otherwise moving
517 about, but keep this form of indulgence for their sociable talks, their meetings, or drinking bouts. No Choroti, when in company with others,

[1] E. g. Holmes (1), pl. CLVI. For the distribution of the straight tobacco pipe in North and South America, see, for example, McGuire (1), and Nordenskiöld (21).

[text continues on p. 140]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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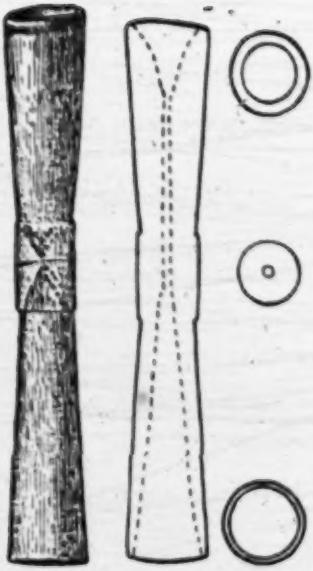

Fig. 156. Reddish-brown wood. Ornament burned in. 10. 3. 143.

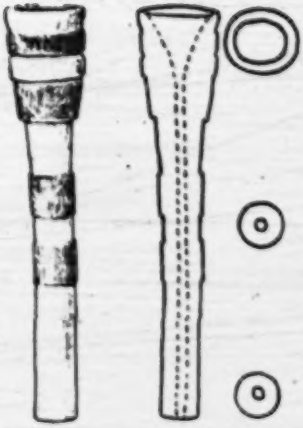

Fig. 157. Yellow wood. Four bands carved in relief, burned dark brown. 03. 3. 226.

Fig. 158. Yellow wood. 03. 3. 229.

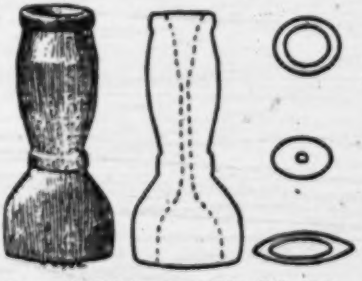

Fig. 159. Reddish-brown wood; the relief carved rings are darkened, by burning. 03. 3. 230.

Wooden tobacco pipes. Choroti. Gran Chaco. Bolivia. 2/3. Riksm.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

276 smokes his pipe alone, but lets it pass, by turns, from mouth to
517 mouth. Similarly to other primitive peoples, the Choroti not only take the smoke into their mouths, but also inhale it into their lungs, a method of smoking which apparently gives them great satisfaction.

534 The Choroti are only indifferently gifted for music, and their musical instruments are exceedingly primitive. These consist of flutes and whistles of bone, whistles made from skulls, disc-shaped whistles made of

[276
531]

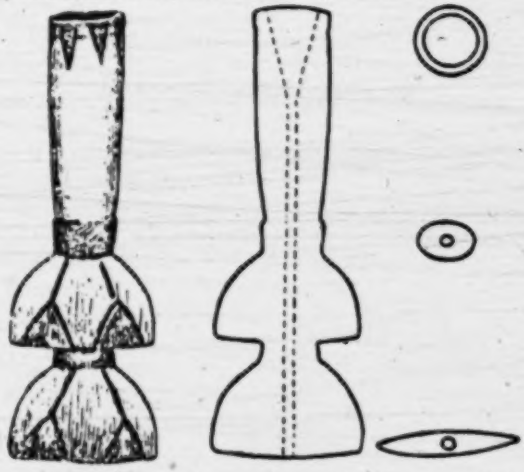

Fig. 160. Yellow wood. Ornament burned in. Riksm. 03. 3. 231.

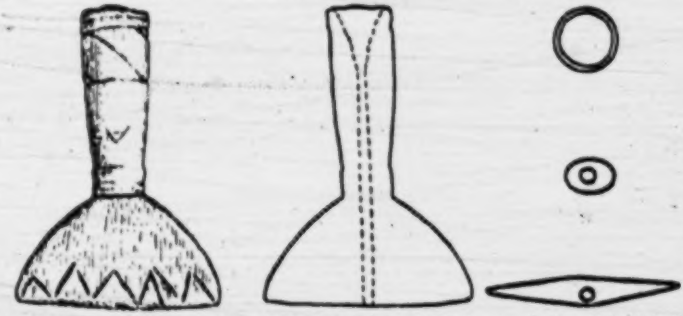

Fig. 161. Yellow wood. The ornament on the mouthpiece and a ring round the mouth of the bowl are burned in. The mark resembling an inverted letter A is carved. The lower ring on the bowl, and the lines that are obliquely issuing from it, are carved and painted red. 03. 3. 232.
Tobacco pipes of wood. Choroti. Gran Chaco. Bolivia. 2/3. Riksm.

wood, music bows, drums, rattles made of calabash, and dancing rattles 534
consisting of animal hoofs. Latterly the Choroti have also taken up the use of a kind of cow-horn trumpet with a mouthpiece of reed.

The reed flutes bear a great resemblance to the ancient Peruvian [171]
flutes, although the latter as a rule are of bone. Like most Choroti flutes, the one depicted in fig. 162 has a notch cut in the edge at the opening of the mouthpiece. This detail is also found on many ancient Peruvian flutes.[1]

Mead writes of the latter that they consist of one-piece tubes of reed or bone, open at both ends, and that they belong to the kind of flutes that are called »end-blown». They are blown at the end where the notch has been cut, with the lower lip against the part of the edge which is diametrically opposite the notch. According to Mead, the notes are produced by the air current, in blowing, passing across the mouthpiece opening and striking the sharply cut, opposite, edge of the flute-mouth (i. e., at the notch); this sets up vibrations in the air column within the tube. It is well known that the note which is given off by a flute depends upon the length of the vibrating air column within the flute. For varying the length of the air column, the ancient Peruvian flutes are provided with holes, from three to seven in number. All attempts at discovering any system relating to the distances between these holes have failed. One is reduced to supposing that the flutemakers among the ancient Peruvians placed the holes in a more or less arbitrary way. The fact of the tones producible on flutes of this kind generally not forming any correct scale, is not to be wondered at when one considers the difficulties a modern maker of flutes has to overcome in order to produce a perfect flute.[2]

Open-ended bone flutes of the same kind as the ancient Peruvian [171]
ones, are known from, among other tribes, present-day Brazilian Indians dwelling on the banks of Rio Tiquié and Rio Caiarý-Uaupés. About these instruments Koch-Grünberg writes that: »at the upper edge of the mouthpiece a square or semicircular notch has been cut out. The flute is pressed against the lower lip, and one blows obliquely into its mouth. These flutes have three, or, more seldom, four, finger holes.»[3]

[1] E. g., Engel (1), fig. 18, a, b, c, and Mead (1), the fig. on p. 14, and also plate V, figs. 1, 2, 3, 7, 8, 9, 12, 15, 21, 22, 23.
[2] Mead (1), p. 14 et seq.
[3] Koch-Grünberg (3), p. 303

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

534 What has above been said concerning the construction and the way of blowing on ancient Peruvian, and Brazilian, flutes, applies in every particular to Choroti reed flutes of the type seen in fig. 162.

With whistles of the construction shown in fig. 163, different tones may naturally be produced by opening or closing the three round holes made

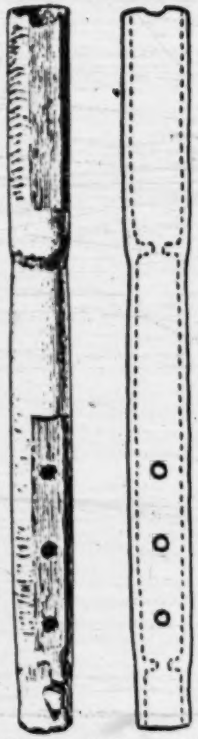

Fig. 162. Flute, of reed. Incised ornament. Choroti. Gran Chaco. Bolivia. 1/3. Rikem. 03. 3. 208.

Fig. 163. Whistle, of reed. Ornament burned in. Choroti. Gran Chaco. Bolivia. 1/3. Rikem. 03. 3. 210.

Fig. 164. Whistle, of a bird bone. Choroti. Gran Chaco. Bolivia. 2/3. Rikem. 03. 3. 218.

through the side of the instrument at its lower end. At its upper end the opening is partly closed with wax. This particular whistle is blown in the same way as our ordinary whistles. Some closed Choroti reed whistles are only provided with one hole, usually semicircular, near the opening of the mouthpiece, and are thus without any holes by which different tones can be produced.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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In previous works on the Indians of the Chaco, there is to my knowledge nothing said about the Choroti possessing whistles made of bone. These Indians do, however, use such whistles, which are made of bird bones (fig. 164). These whistles are open at both ends, so that two notes can be produced; if one closes the lower end of the whistle with the finger, one naturally obtains a note differing from the one given by the open whistle. In the bone whistles, the blowing-end is partly stopped up with wax.

Fig. 165 shows a remarkable type of whistle, which is very common in the Chaco. This whistle consists of an oval, flat piece of wood, bored through in the way seen from the figure. On one side it has a sheeting of tin, which originally had a serrated edge all round, like a cog-wheel. Most of the teeth are, however, worn away, but on the left half of the mounting the serrations are almost intact. The mounting is set on the wood by means of some waxy substance. The reverse side of the disc is without any mounting or other ornamentation. For carrying this whistle there is a plaited cord of red, woollen-yarn, which is decorated with a few snail-shell spangles. The object in question is evidently very old, as one of the holes which originally served for fastening the carrying cord has become useless through the cord having worn through the wood, which is of very great hardness, in the way seen from the figure. A new hole for the cord has therefore had to be bored. Oval whistles of this kind, ornamented on one side, are worn as breast ornaments by most Choroti, and are also found among the Ashluslay, Chané, Chiriguano, Churúpa, Lengua, Mataco, Tapiete, Toba and Yuracare. [171 301]

Fig. 165. Disc-shaped, wooden whistle; on one side mounted with a piece of tin, the other side unmounted. On the figure, the dotted lines mark the boring. This object is meant to be worn as a breast ornament string round the neck. The carrying string consists of red, woollen yarn, and is decorated with a few snail shell spangles. Choroti. Gran Chaco, Bolivia. ¹/₁. Rikem. 03. j. 314.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

534 and Yuracáre. Outside the Chaco, and the regions bordering on it, this type of whistle has not, so far, been found.[1] It is noteworthy that, generally speaking, these whistles have been given a similar, very characteristic, ornamentation. It is only such whistles as originate from the Yuracáre that form an exception from this rule.[2] The ornamentation, which is usually carved in the wood, in low relief, consists of a figure more or less
[531] resembling a cogwheel, with a wheel-cross in its centre (fig. 166). Such whistles as have a tin mounting are sometimes without the wheel-cross (see fig. 165).

789 This ornamentation is probably of some magical significance.[3] For the
534 fact is that these disc-shaped whistles are not only a combination of
531 ornament and musical
301 instrument, but they are also put to magical use. Karsten relates that the Choroti Indians, whilst performing their exorcismal dances, now and then blow their disc-shaped whistles to scare off evil spirits.[4]

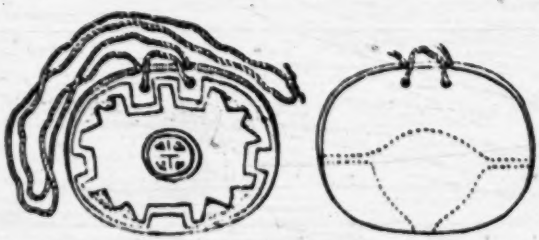

Fig. 166. Disc-shaped, wooden whistle, one side with carved ornament, the other side plain. Used like the whistle in fig. 165. Choroti. Gran Chaco, Bolivia. 1/1. Gothenburg Museum. D. 793. From Nordenskiöld (11), fig. 56.

In a monograph on whistles I have endeavoured to show that the practice of carrying ornamental whistles is of remote antiquity in America, and I think I have adduced very strong evidence of the so called »mesh-spacers» of antler or polished stone, that have been found in graves in North America, being, as a matter of fact, used as ornamental whistles, and possibly of a magical character.[5]

534 The disc-shaped Choroti whistles are blown at the lower aperture (see figs. 165 and 166), and with the same technique in blowing as described in connexion with the description of the flute in fig. 162. By the closing

[1] Nordenskiöld (11), pp. 188 and 189.

[2] Nordenskiöld (11), p. 188.

[3] Of the wheel-cross having been, and still being, also in America the characteristic symbol of the sun, we possess reliable proof. See e. g. Frobenius (1), fig. 298. Cf. also d'Alviella (1), pp. 76 and 77; and Holmes (1), plate XXXVIII.

[4] Karsten (1), pp. 34 and 35.

[5] von Rosen (8), p. 114 et seq. and Gustaver (1).

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

of one, or both, holes which are at the side edges of the disc whistle, different tones are obtained, and if both the side holes are open, the whistle renders a third note. 534

A primitive type of whistle found among the Choroti, one which I have not myself seen, consists according to Nordenskiöld of the skull of some small animal, in which all apertures have been stopped up, with the exception of the *foramen magnum*.[1] The instrument is blown on by way of this orifice in the same way as are the flutes and disc whistles. Koch-Grünberg has reproduced and described two whistles made out of (nose-bear?) skulls (Nasua sp.) from the Kobé Indians on Rio Cuduiarý, and one whistle consisting of a deer skull (Cervus rufus) from the Tukáno on Rio Tiquié.[2] These cranium whistles are partly plastered over with pitch, but the basal, and nasal, orifices are left open, whilst the cranium whistles described from the Choroti by Nordenskiöld only have the *foramen magnum* left open. Hence the former can be used both as open and as closed whistles, and consequently can produce two notes (and eventually their harmonics), whilst the cranium whistles of the Choroti are only capable of one note (with a possible harmonic). I do not consider it improbable that certain, very singular-looking Old Peruvian whistles of earthenware or stone constitute forms of development out of the primitive cranium whistle.[3]

The cow-horn trumpets that Nordenskiöld has seen among the Choroti [177] are certain to be post-Columbian cultural elements, seeing that there were no cattle in America prior to the invasion by the whites. In these trumpets the mouthpiece consists of a reed, and the tone is produced by means of a reed splinter, which is cut out, and which, when the horn is blown, vibrates in the same way as the metal tongue of an ordinary toy trumpet.[4]

Nordenskiöld has seen music bows among the Choroti, but no instrument of that class has yet been described from that tribe, and as I personally got no opportunity of seeing a Choroti playing on a music bow, I am not in a position to describe the manner in which the instrument in question is played among these Indians.[5]

[1] Nordenskiöld (11), p. 187.

[2] Koch-Grünberg (3), pp. 303—304.

[3] See for example Mead (1), pl. IV, fig. 8; Joyce (1), p. 73 and plate VI, figs. 1 and 3; Jijón y Camaño (1), pl. XVII, XVIII and XIX; von Rosen (1), pp. 378 and 379, and fig. 336.

[4] Nordenskiöld (11), fig. 50.

[5] For the occurrence of music bows in South America, see: Bolinder (2), Nordenskiöld (13), pp. 80 and 84; (11), pp. 176 and 177, and (1), p. 15.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

534 174 When pointing out that Gustav Bolinder saw music bows being used among the Busintana Indians of the mountain regions of northern Columbia, I made the following statement concerning the occurrence of this instrument in South America: »This music bow (the Busintana one) is almost exactly of the same kind as those in use among many African peoples. But, as we know, peoples who are widely separated from each other may, however, independently of each other make similar inventions. In this particular case there is, however, an additional circumstance which lends it an especial interest. The music bow is by the Busintana called 'marimba',

Fig. 167. Magic drum, consisting of a clay pot, partly filled with water, and with a skin stretched over it. Choroti. Gran Chaco, Bolivia. 1/6. Riksm. 10 3. 143.

a name which also in Africa is given to primitive musical instruments. 'Marimba', 'myrimba', 'marimbo' and 'kirimba' are words which occur in a great many Bantu dialects throughout Central Africa, and in every case signify musical instruments. In view of this fact, I think it not improbable that the use of the marimba was introduced into South America by slaves imported from Africa.«[1]

In a monograph on the music bow of the Busintana, Bolinder has subsequently adduced very strong reasons in support of my supposition that the music bow was actually introduced into South America from Africa in the above indicated manner.[2]

[1] von Rosen (9).
[2] Bolinder (2).

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

I never heard the Choroti sing or play any real melody; as I have already pointed out, the musical sense of these Indians appears to be exceedingly rudimentary. But when they are beating their magic drums (fig. 167), or using their magic rattles (fig. 170), one perceives that they are by no means lacking in a sense of rythm. 533

Fig. 168. Drumstick, of wood, with a small tin-plate mounting. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 394.

The drums as well as the rattles are of a magical character; both are principally used at incantations and magic dances.

The magic drum consists of an earthenware vessel which is partly filled with water, and covered over with a piece of skin. The skin is tied round the mouth of the vessel with a string of caraguatá (fig. 167). A single drumstick is always used. Drumsticks are of wood, and usually carved; sometimes they have metal mountings (figs. 168 and 169). When the drum is to be used, it is usually stood on a ring of straw which is placed on the ground.

Drums consisting of clay pots with skin stretched over them have also been in use in North America. According to some early authors, such drums were not beaten with the bare hand, but with a drumstick: thus they were in this respect handled in the same manner as by the Choroti.[1] As to whether the North American drums were also partly filled with water, I am not able to say, as in the literature I have found no information on that point.

In a previous work I have endeavoured to show that, among the Choroti, water was put into the drums for the purpose of tuning them to the pitch that was wanted.[2] This detail of information, which I had from the Choroti themselves, is in all probability correct. Karsten, however, offers a different explanation. He is of opinion that the water is poured into the clay-pot drums exclusively for reasons

534 [784]

Fig. 169. Drumstick, of wood with ring-shaped tin mountings. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 398.

[1] See for example Holmes (1), p. 34 and fig. 4.
[2] von Rosen (2), p. 12.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

534 of magic, and on this matter he writes as follows: »These drums consist of a plain clay pot, which is partly filled with water and has a goat- or deerskin stretched over it. Here the water evidently serves no practical purpose. It may therefore be supposed that the idea was simply to strengthen the magic force that the drum gave out when beaten upon.»[1] Karsten's saying that the water in the pot could serve no practical purpose seems to me strange, as, by practical experiment, one can easily satisfy oneself that a Choroti drum partly filled with water gives out quite a different tone to what it does when quite empty. We also know that elsewhere similar means are employed for tuning drums as desired, for it is stated by Engel that the Chinese used to fill their »po-fu» or »ku» drums, wholly or partly, with rice husks, in order to give roundness and mellowness to the tone.[2]

[531]

Fig. 170. Magic rattle, of calabash with incised ornament. Carrying cord of red, woollen yarn. Choroti. Gran Chaco, Bolivia. 1/3. Riksm. 03. 3. 386.

Figure 170 shows a magic rattle consisting of the shell of a calabash, and containing a dark-blue, much worn, piece of glass and two kinds of almost spherical seeds, one of them being black and the other yellow. The latter have a diameter of 5 mm; they belong to a species of Smilax. Professor Fries has pointed out to me that the roots of Smilax species are officinal. It has not been possible to determine the black seeds; their diameter is 4 mm. In the handle is fixed a carrying cord of

[1] Karsten (3), p. 205: »Diese Trommeln bestehen aus einem einfachen Tontopfe, der zum Teil mit Wasser gefüllt und mit einer Ziegen- oder Hirschhaut bezogen ist. Das Wasser dient in diesem Falle zu keinem anscheinend praktischen Zwecke. Wir können daher annehmen, dass man einfach glaubte, die zauberische Kraft zu erhöhen, die dem Tontopfe anhaftete, und die von der Trommel ausstrahlte, wenn sie geschlagen wurde.»

[2] Engel (1), p. 41: »The po-fu used to be partly filled with a preparation made from the husk of rice, *in order to mellow the sound*.» Italics by von Rosen.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

plaited, red woollen yarn; in the centre of the thick end of the rattle a circular hole has been made, 1.5 cm in diameter. It is through this hole that the above mentioned seeds have been poured into the calabash. The hole has then been stopped up with a plug of some black, waxy substance. The visible part of the plug is decorated with a mother-of-pearl button which originates from the whites. On the calabash there is carved ornamentation. 534

Rattles do not always contain only seeds, for in their interior one may also find other articles, such as bits of tinplate, glass beads and bits of glass (usually worn into a resemblance of pebbles), see fig. 182.[1] The incised ornament on these rattles is probably in every case of magical significance, even when, as on the rattle in fig. 170, it does not form any pictorial representation which is perceivable by the uninitiated. Pictorial representations are, however, fairly common on magic rattles of calabash (see fig. 181). In many rattles, the seeds, bits of metal, etc., have been introduced by way of a hole at the end of the handle, fig. 181, into which a plug of wood has then been inserted. This kind of rattle is as a rule without a hole at the base, or carrying string (see table on page 169).

Nordenskiöld[2] as well as Karsten[3] has given valuable accounts of the dances of the Choroti. At some of these the Indians wear a kind of dancing girdle, hung with animal hoofs or dried fruit shells which beat against each other at the dancer's movements, and in that way make a rattling noise. Karsten has tried to establish that all Choroti dances originally were of magical purport,[4] whilst Nordenskiöld is of opinion that the Choroti also possess purely profane dances, connected with the sexual life of these Indians.[5] Nordenskiöld describes this kind of dance in the following way: »In the larger villages, among the Choroti as well as the Ashluslay, there is dancing every night, nota bene, if the belly is not empty. For the young people these dances are everything; all their interest 535 [534] 535 302

[1] The bits of glass that one finds inside magic rattles are as a rule so much worn and stone-like that it requires a mineralogist to ascertain the fact that they are not products of nature (see fig. 182). The statement that one often finds the magic rattles of the Choroti containing stones (Vide von Rosen (3), p. 12), is erroneous, and due to the illusive resemblance that these worn bits of glass bear to quartz pebbles.

[2] Nordenskiöld (13) and (17).

[3] Karsten (1) and (4).

[4] Karsten (4), p. 26.

[5] Nordenskiöld (17), p. 145.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

535 centres on them. It is for them that they paint and deck themselves out.
302 At these balls the young Indian tries to appear as elegantly apparelled, as originally painted and decorated, as possible. Each day he paints himself after a different fashion, and arranges his ornaments differently. — These gentry, upon growing into older, staid, married men, no longer adorn themselves for ball parties, but only for war. — As to the Choroti girls, I have often seen them anointing their bodies with fish oil, which imparts to them an unpleasant smell. Their own opinion on this point is
[832] no doubt a very different one. To their thinking, we Europeans have an offensive cow smell. The level of elegance affected by the men is never
535 attained by the women. Still, they are, however, able to make the consoling reflection that it is, anyhow, in the first place for their sake that the lords of creation spend several hours of the day on their toilet.

›As has been said, it is in dancing that the whole interest of the young men and the young women centres. When the sun has set, then it begins. In a circle, or in a single rank, the men dance, marking the time by singing, may be: 'Täe-a-sa-lé, täe-a-sa-lé'. As the rhythm of the singing is slow or quick, so is the dancing. Music is a thing unknown at these
[533] dances. The chants that are sung are untranslateable refrains, which often are international, i. e., are used by many different tribes. The girls dance behind the men. Among the Choroti Indians it is the girl who takes the
[832] initiative in the matter of amatory ventures. She simply carries off with her, from the ball, any particular young man whom she may want as her lover for the night. These dances made a grand spectacle, as the moon, or a bonfire of pampas grass, shone on the gleaming bodies, I have seen as many as a hundred men form a dancing circle. At times the dance went quite slowly; at times it would go at a breakneck speed, raising clouds of dust, so that all one could see was a whirling melée of bodies and waving ostrich plumes.‹[1]

535 789 Of the dances of the Chaco Indians,[2] those that are obviously magical are mainly performed as ceremonies of exorcism against dreaded spirits who have it in their power to cause illness or death; according to Karsten, magic dances are also resorted to in order to enhance the supply of wild, edible fruits.[3]

[1] Extract from Nordenskiöld (13), pp. 73, 75—77, and 79.
[2] Karsten (1).
[3] Karsten (1), pp. 25—28.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 171. Men who are engaged in playing a gambling game called «chukes». The scoring is done by means of arrows stuck into small holes in the ground, usually arranged in the way seen in fig. 173. On account of the shadow thrown by the arrow nearest the foreground, the holes next to this arrow, although strongly sunlit, can be seen. The third arrow from the foreground is planted in the «river» (see page 173). From this picture, as from the diagram, fig. 173, will be seen that the row of holes at times may be laid out so as to form a curve or an obtuse angle.
Choroti. Gran Chaco Bolivia. Photo. E. v. R.

[p. 152 is blank]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

The Choroti takes much pleasure in games and pastimes. Fig. 171 shows some Choroti men engaged upon a gambling game called ›chuke‹, which in the Chaco is widely known and very popular. It is a kind of dicing game, although the dice, unlike ours, are not cubes but consist of planoconvex or concavo-convex sticks of wood or cane, usually about a decimetre long. Four playing sticks are always used. The convex side of the playing sticks is generally ornamented by burning or carving, so that it may quickly be decided, after each throw, which side has come uppermost (fig. 172). When the Choroti are preparing to play chuke, they dig little holes in the ground, in the way shown in figs. 171 and 173.[1] The men playing at a game of chuke may number two, four, six, or eight. I have never seen women playing chuke. If we suppose that only two persons are playing this game, this is the way it is done:

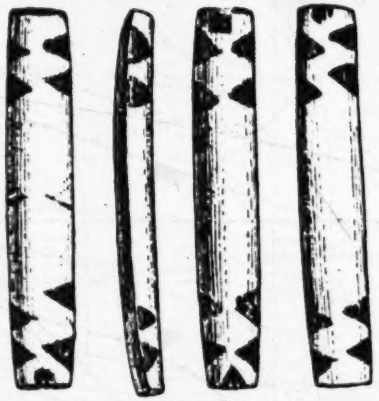

Fig. 172. Counters, of yellow wood, plano-convex, with ornament burned in. Used in the game of ›chuke‹. Choroti. Gran Chaco, Bolivia. ²/₃. Riksm. no. 3. 70.

The holes numbered 1 and 23, respectively, are the ›homes‹ of the players. A plants one of his arrows in No. 1, and B one of his in No. 23. These arrows (pointed sticks will also do) represent the two players. The hole numbered 12 is called the ›lake‹ or the ›river‹; it constitutes the boundary between the fields of the two players. Into the holes numbered 1 to 11, A places his ›chips‹, or counters, consisting of bits of grass, wooden sticks, chips of wood, or seeds, and B puts his into the holes numbered 13 to 23. These counters are called ›sheep‹. A takes two playing sticks (see fig. 172) in either hand, and throws them against each other so that they may touch when they are falling to the ground. The players then look to see how many sticks have fallen with the convex side up, and the value of the throw is calculated in accordance with the following scoring system:

[1] A somewhat different system as to the number and arrangement of the chuke holes is also in use. Nordenskiöld (11), p. 163–164.

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4 convex sides upturned count 4 points,
0 » » » » 2 »
2 » » » » 1 »

A throw resulting in odd numbers of convex sides turning up is valueless, i. e., counts 0 points.

Supposing A makes a 4-point throw, this entitles him to move his arrow to the fourth hole from his »home», that is to say, to No. 5. If he had made an 0 score, his adversary would then be in turn for throwing the sticks, but as it is, A is by the rules allowed to go on and then makes, say, 2 points (i. e., no convex side up) and accordingly moves his arrow another two holes, to No. 7. If his next throw results in nil, then he must not move his arrow. It is now his adversary's turn, and

Fig. 173. Arrangement of holes in the ground, for the game of »chuke». From Karsten (5), fig. 5.

if he makes 1 point with his throw, he moves his arrow from his »home», which is No. 23, to No. 22 hole. If his next throw counts 4 points, he moves his arrow 4 holes, to No. 18. A zero throw breaks the sequence, and changes the turns for A and B to throw. Eventually, when either player makes a throw which carries him across the »river» (No. 12 hole) so that his arrow has to be placed in a hole within his opponent's field, he takes the »sheep» that are in that hole. Should a player make a throw which lands him in the »river», he scores a no-throw, and is not allowed to play again until his opponent has completed an entire round. If the player who is in the »river» should from that position make a zero throw, then he has to move his arrow back to the hole nearest his »home» where he still has some »sheep» left. And if, for instance, A should knock B's arrow out (see below) before he has taken all his »sheep», then B has to move his arrow back to his »home».

After a player has reached the end of the row of holes, he starts back towards his own »home», and moves his arrow according to his throws, as before. In this way the arrows wander forward and back

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

again until a player has taken all his adversary's »sheep», when it remains for him to try and takes his arrow too. In this he succeeds if he can make a throw which lands him in the hole where his opponent's arrow happens to be. If he does that after having taken all his opponent's »sheep», then he has won the game.[1]

The Choroti are enthusiastic chuke players, and as a rule play for stakes. On this game they can stake snail-shell necklaces, woollen mantles and other things, often representing considerable values to the Indians. According to Karsten, the chuke game may also be played for purposes of magic. It is mostly played when there is a dearth of food, for the Indians believe that they are able to make the wild fruit grow in larger quantities by assiduously playing chuke.[2]

Playing with a ball is a much favoured pastime. A ball game resembling hockey is played among the Choroti and several other Chaco tribes. The players divide themselves into two teams, each having its goal to defend. The distance between the goals depends on whether grown-ups or children are going to play, the distance being greater in the case of the former. Each goal is marked by branches stuck into the ground. A wooden ball is thrown into the centre between the goals by an Indian who is not taking part in the match. By means of »hockey» sticks consisting of the leaf-stalks of a palm, grown with a natural bend (fig. 174), or of tree branches, the players then try to drive the ball so that it rolls into the goal that their opponents are defending (fig. 177). As will be seen, this game is played on the same principle as our hockey, by attacking and defending. It was a great pleasure to watch Choroti boys playing hockey, in which their native lissomness was exhibited.

I also saw Choroti children play at ball. Their hand-balls consisted of dry maize leaves tied together in the way seen in fig. 175. They have the appearance of old-time flaming hand grenades, and, whichever way they are thrown, they always fly »ball» foremost and the »fiery tail» pointing backwards or upwards.

The Choroti boys make themselves both long-bows and pellet-bows with which they shoot at a mark, or use in play in other ways; they also amuse themselves with a kind of light, two-cord bolas[3] and with little

[1] Cf. Nordenskiöld (11), pp. 162–164, and Karsten (8), pp. 100–102.
[2] Karsten (8), p. 102.
[3] Nordenskiöld (13), fig. 34.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6
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›pea-shooters‹ of reed.[1] With the latter they fire off hard kernels, clay pellets, etc. Very small children are given small rattles made of woody fruit shells with dry kernels inside, which make a rattling noise when shaken. Girls are very fond of playing with dolls. These are modelled in clay by some female relative, usually the girl's mother, and are usually fashioned in the shape seen in fig. 176. This doll, which represents a woman with strongly developed breasts, is, however, not from the Choroti but from the Toba, a tribe with whom I also came in contact during our journey. It would appear as if the Choroti mothers in making these dolls attach the greatest importance to reproducing the breasts as true to nature as possible, and often they also try to copy the tattoo marks on the face. The Choroti dolls, however, often being made either without, or with very small, heads, the tattooing is mostly marked on the breast of the figure.[2]

C 524 857

Fig. 174. ›Hockey‹ stick, consisting of the leaf-stalk of a palm. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 203.

C [524]

Not only Choroti children, but also grown-ups occasionally while away time by string tricks more or less resembling those which children of our own country sometimes amuse themselves with.[3]

T [524 332]

I have had frequent opportunities of seeing Choroti children at play, and have found their games and sports in many ways similar to those of our own children. Indian children play ›tag‹, play being at war, at hunting and fishing, and also imitate other occupations and doings of their elders.

Fig. 175. Hand ball, of maize leaves. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 199.

Fig. 176. Child's doll, made of clay. Toba. Gran Chaco. 1/3. Riksm. 03. 3. 805.

[1] Nordenskiöld (13), fig. 23.
[2] Cf. Nordenskiöld (20), figs. 4—18.
[3] Nordenskiöld (13), fig. 25.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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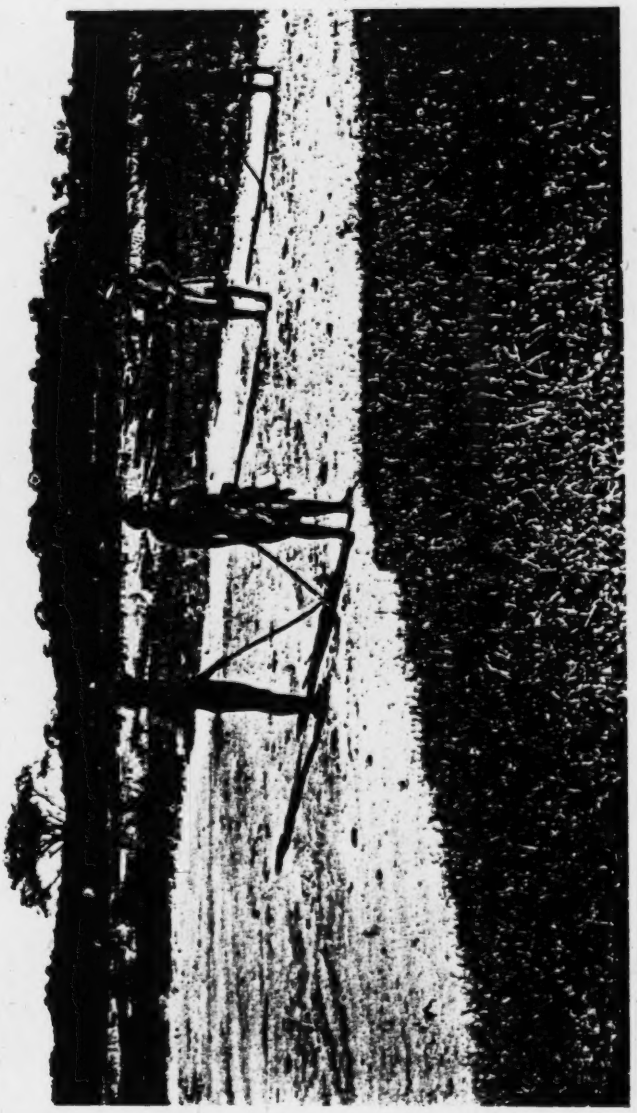

Fig. 177. Boys practising a ball game resembling hockey. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[p. 158 is blank]

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CHAPTER VI.

The Choroti (6). Family Life and Social Organization. Superstition. Illness and Death.

Marriage customs. Division of labour. Chiefs. Medicine men. Belief in evil spirits. Magic means of protection. Illness. Exorcism. Fairy darts. Physical therapeutics. Death. Burial. Belief in a future existence.

A Choroti man, as a rule, has only one wife, but among the part of 595
the tribe that has been in close intercourse with the Chiriguano, it is not an uncommon thing for the chiefs to possess several wives, as, for instance, the chief of the Choroti Indians living in the neighbourhood of Tatarenda (close on the border of the Chiriguano country), who had no less than three spouses. In fig. 178 is seen this chief holding one of his sons by the hand; to the left of the boy there is the chief's »number-one» wife, grown old and ugly, and on the man's right is his second wife, the mother of the boy. His third wife, who is not included in the picture, was quite a young girl.

Among the Choroti it is the women who take the initiative in amor- 832
ous relations. As a rule, this is done at dances which take place in seasons when food is abundant, and the Indians accordingly find it fitting to dance and amuse themselves. In his book »Indianliv», Nordenskiöld has given a very vivid description of such nocturnal mating dances, and in the preceding chapter I have (pp. 149, 150) quoted from him.

When a girl has reached mature age, she enters into free and un- 836
restricted relations with now one, now another, of the men, but finally she finds for herself a partner for life (see fig. 179). Having once taken this step, she usually keeps faithful to her husband. If a Choroti girl should happen to become pregnant, she sets about procuring abortion, and in [947]
that way she as a rule avoids having any children before becoming a

wife. [p. 159]

1: Rosen , E-5 (1901-1902) 1924 SK6 Choroti SK6

wife. Not infrequently it happens that two or more girls become enamoured of the same man. Then fierce fights are often fought out between the rivals, who in these encounters sometimes use knuckle-dusters or sharp-pointed bone awls (see fig. 111). The Choroti girls have a somewhat peculiar way of demonstrating their tender feelings towards their beloved; they do not kiss him, but scratch him with their nails and spit in his face![1]

When a woman has been taken to wife by the man she has chosen, the latter comes to live in her village, at least for some period of time.[2]

Division of labour as between the sexes among the Choroti.

M = men; W = Women.

Rearing and care of livestock	M[3]	W[3]
Fire kindling, by drilling	M	
Collecting fuel		W
» wild growing, edible plants		W
» wild honey	M[3]	
Hunting and catching game	M	
Preparing the food	M[4]	W
Cultivation of food plants	M	W
Wool and cotton spinning		W
Sewing	M[3]	W[3]
Manufacture of feather ornaments	M	
» » articles of calabash	M	
» » pottery		W
» » articles of leather	M	W[3]
» » fishing nets	M	
» » articles of wood	M	
» » weapons	M	
» » bags, knitted of caraguata yarn		W
» » » » » woollen »		W
Load carrying		W
Hut building	M	W
Weaving		W[3]
Drawing and carrying water		W
Beer brewing	M[5]	W[5]

The heavier burden of work undoubtedly falls to the lot of the women. It is their business to gather edible fruits, to carry home fuel and water, to prepare the food, and, of course, also to tend the children. When the tribe is travelling, it is the women who carry the household furniture and

[1] Nordenskiöld (13), p. 81.
[2] Nordenskiöld (13), p. 83.
[3] According to Nordenskiöld (13), p. 87.
[4] Roasting the food. According to Nordenskiöld (13), p. 87.
[5] Beer fermenting, only. According to Nordenskiöld (13), p. 87.

[Text continues on p.163]

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Fig. 179. A girl, and the lover she has chosen for herself. Choroti. Gran Chaco, Bolivia. Photo. E. v. R.

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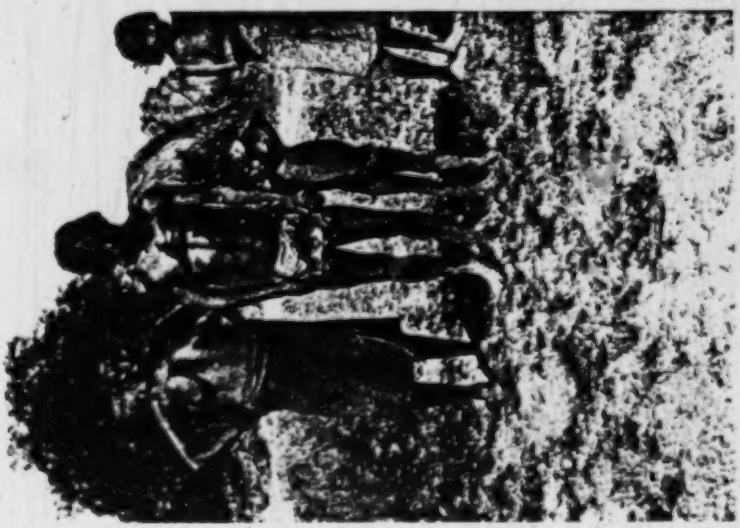

Fig. 178. A chief, with his son and two of his three wives. Choroti. Gran Chaco, Bolivia. Photo. E. v. R.

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equipment in large carrying-nets and bags; at such times the men march along unburdened, carrying in their hands only bow and arrows. This is, however, easily accounted for, as on the trek the men have always to be prepared to kill game for procuring food. If they, like the women, were hampered by heavy loads, they would practically have no chance at all of taking a ready arrow shot at game encountered on the march.

I never once saw grown women amusing themselves with any games or sports, whereas this is frequently the case with the men. The chief occupations of the latter consist of hunting, fishing, the gathering of wild honey and the manufacturing of various weapons and implements (see the above table of division of labour as between the sexes). The men give considerably less time to actual labour than the women, and to me it seemed as if the life of Choroti wives was hard and laborious, whilst that of the men, as a rule, was pretty light and easy-going.

Nevertheless, the men are by no means hard or cruel to their wives, and it appeared to me as if the women took it as a matter of course that they had to work for their husbands and children in the way they did, and, generally speaking, they seemed quite content with their lot in life. Indeed, I noticed many instances of real domestic happiness.

Parents bear great love to their children. These, when quite small, are carried by their mothers in a broad strip, or piece, of cloth in the way fig. 180 shows. The Choroti do not have many children; it is only seldom that the number of children exceeds four. According to Nordenskiöld, they are given names only when old enough to answer to them. The same author has noted down the following Choroti names, of which the first three are men's names, and the remainder women's names: Yóseliané (the killer of foxes), Hótenic (Mataco), Éstiáhua (a gallinaceous bird), Hayku (not sweet), Kósoki (suffering from skin eruptions), Aséshnialo (women in plenty).[1]

Parental authority does not amount to much, and actual bringing up and discipline is entirely out of the question. In cases where parents attain so great an age that they become irksome to their children, it is not unknown for the latter to kill them. Nordenskiöld's interpreter, Flores, once witnessed a Choroti man burning an old and decrepit woman alive. Old men and women, who are suspected of working evil by witchcraft, are sometimes burned alive, and therefore it is possible that belief in the

[1] Nordenskiöld (13), p. 85.

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[342]

Fig. 180. Husband and wife, with baby. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[888 754 683] supernatural, of some kind or other, plays a leading part when children kill their aged parents.

622 Every village is ruled by a chief or headman. According to the observations of some investigators, these headmen do not nowadays possess any great power or authority, but among the Choroti whom I visited in 1901, the chief's authority was by no means inconsiderable. For example, it only needed my arranging with him that the Indians were to carry out a certain piece of work, and the work would be done. For the work performed by the Indians I paid the chief in goods, which he allotted among them as he himself thought fit, as it appeared. In war, each village [643] contingent is under the leadership of their headman. It was stated by the soldiers of Fort Crevaux that all Choroti used to be under a paramount chief, whose authority over all the other chiefs principally consisted in his being entitled to taking chief command in war. The office of village headman as a rule descends from father to son.

622 554 That certain Choroti chiefs used to be held in greater respect than others was made evident to us at a visit we made to a sugar plantation on our return journey to Salta. A large number of Choroti had just then

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arrived at this plantation to look for work. Led by their chiefs, they had made the long journey from the region of their homes. The chiefs, some of whom had met us in the Chaco, whilst others had only heard of us, wished to pay us a call. Personally I do not possess any notes about this reception, but I have come across some in Fries' diary. He thus refers to the incident: »When the Choroti Indians, whom we knew from Tatarenda and who were now working here, saw us, they came, almost to a man, and greeted us, being evidently very glad to meet us again. *The principal chief, at the head of all the lesser caziques*, was among those who came and paid us their respects.«[1]

A favoured position in the village community is that held by the medicine men; for their services they are rewarded by a — from a Choroti point of view — generous remuneration in the form of food and drink. That among the Choroti the medicine men are held in great esteem, and that everybody is anxious to be on good terms with them, appears only natural to anyone with a knowledge of what an important part magical conceptions play with these Indians. It is largely by the Finlander explorer, Rafael Karsten — oft-quoted in the present work — that ethnological science has been enriched by information and detailed reports on the magical customs and practices of the Choroti, as well as of other Chaco tribes.[2]

The Choroti Indians believe that man, all his life through, is more or less subject to influences from spirits, who, on the whole, are of a harmful nature. Especial danger is to be apprehended from spirits on certain occasions such as child-birth, pubescence and death. Usually the evil is worked by a spirit, »mohsek«, entering a person through one of the orifices of his body and thereby assuming possession of him. If at birth a child is deformed or very sickly, it is supposed to be possessed by some evil »moshek«, and is on that account killed.[3] When a girl has attained the age of puberty, during the first critical, time she must keep a covering over her head, so that no evil spirit may be able to enter her body by way of her nose, mouth, eyes or ears.[4] The occasion of a girl attaining puberty is celebrated with a dance which undoubtedly is of a magical character.

[1] Professor Robert Fries' diary, X, p. 14. Italics by von Rosen.
[2] See Bibliography attached.
[3] Karsten (4), p. 176.
[4] Karsten (4), p. 165.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

776 [764] character.[1] When there has been a death in a village, certain precautionary measures have to be taken in order that the spirit who caused the death may not in some way or other work further evil.

But also on all other possible occasions the spirits are capable of working harm, indeed, Karsten is of opinion that the Indians, even when doing such commonplace acts as eating and drinking, fear that malicious spirits may surreptiously effect an entrance into them along with the food or drink.[2] That the Indians have this belief is not so very remarkable. Similar conceptions are to be found among many peoples in different continents, and have also been widely spread in Europe. To mention one instance; in olden times on yawning or sneezing there was the custom of making the sign of the cross before the mouth, a custom founded on the fear that the devil or some of his kindred should slip in through the open mouth.

751 As a means of protecting themselves against evil spirits, or for securing, in a magical way, other advantages, the Choroti make use of a variety of devices, the most important of which are the covering of the body, painting of the face, dyeing textiles and other objects red, tattooing, wearing of amulets and certain ornaments, singing, blowing of whistles and shaking rattles, beating of drums, dancing, games of hazard, cutting or pulling out of hairs, and blood-letting.

The custom, previously mentioned, of the girls at their first menstruation keeping their heads covered with a cloth, is an instance of the first-mentioned magical means of protection.

302 751 At dances and lovers' meetings the Indians paint their faces (see page 78), but they adorn themselves by face-painting also on other occasions. As an instance, men as well as women usually had their faces painted when visiting us in our camp. At the time we took this to be a manifestation of Indian vanity, but after having read Karsten's detailed account of the reasons for painting the face among the Indians, I am more inclined to the belief that this painting had been applied as a protection against such unknown spirit forces as might possibly threaten them in the camp of the whites.

831 302 751 That painting of the face is done at dances and meetings of a sexual character, is a circumstance connected with the Indian belief that occasions

[1] Karsten (1), p. 26, and (4), p. 17.
[2] Karsten (3), p. 305.

1: Rosen E-5 (1901-1902) 1924 SK6 Chorotl SK6

of that kind are especially apt to make it easy for the spirits to acquire possession of human beings. When a woman paints her face, that fact may, therefore, indirectly constitute a sign that she desires sexual intercourse, although the painting may perhaps have been done for the magical reasons above indicated.[1]

On page 58 I have remarked that on a reed-casing for keeping ostrich plumes the holes and the edges of the lids were painted red. This red-painting cannot very well be of a decorative character, seeing that there is not much of the paint visible when the lid is closed. According to my opinion, it is very probable that the paint has been applied in order to protect the delicate ostrich plumes contained in the casing from sustaining harm from evil spirits. The fact is that there is, among the Indians, a wide-spread belief that decay and similar processes are caused by evil spirits, on account of which it has been customary among certain Indian tribes to paint not only corpses but also grave equipment with red paint for the purpose of preservation against decay. And we also possess positive evidence that among certain Indian tribes the custom prevails of providing the property of the living with a similar magically protective, painting.

When through Karsten's paper on Indian conceptions as to the significance of painting,[2] my attention had been drawn to these circumstances, I took to examining most of the objects I had found as grave furniture at Quebrada del Toro and Puna de Jujuy (Argentina) in order to ascertain whether any of these objects had been painted before being put with the dead.[3] This examination revealed that nine wooden objects seemed to be painted all over with red paint, but as I, owing to the objects having lain such a long time in the ground, was unable with certainty to decide whether these objects really were painted, or whether their red colour was due to the natural colour of the wood, I had the objects in question submitted to chemical examination. It was then established that the objects were painted, and that the paint consisted of ferrix oxide, almost pure,[4] (so therefore not uruku, which is prepared from Bixa Orellana).

[1] Cf. Karsten (4), Chap. I.

[2] Karsten (4), Chap. I.

[3] As a result of the fact that all the ethnographical and archæological collections of the Riksmuseum are stored in most unsuitable premises, it has not been possible to find all of the objects.

[4] Analytical report No. 211934, Chemico Technical Bureau (Kemiskt Tekniska Byrån).

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172 Particulars of the objects in question are given in the table here below:

Objects painted all over with red paint, found by the author in ancient Indian graves at Casabindo. Puna de Jujuy. Argentina.

Riksm. coll. No.	Class of object	No. of fig. in von Rosen (10)	No. of page on which object is mentioned in von Rosen (10)
03. 3. 6797	Long handled spoon	—	38
03. 3. 6826	Pointed stick	53	37
03. 3. 6809	Distaff	—	31
03. 3. 6819	Small club (fish club?)	43	34
03. 3. 6833	» » » »	44	33
03. 3. 6830	Wooden knife	59	38
03. 3. 6871	Miniature bow	45	34
03. 3. 6873	Fragments of arrow shaft	—	35
03. 3. 6831	Mesh-spacer	39	33

304 751 On page 72 et seq., I have already described the manner in which the Choroti tattoo themselves, and also pointed out that this tattooing is of a magical character whilst at the same time this practice, like the painting of the face, is to a certain extent connected with the sexual life of the Indians. It is highly probable that not only the painting, but also the tattooing, of the face among the Choroti is done in order to prevent evil spirits from entering the body by way of eyes, nose, mouth and ears.[1] The arrow-like signs that sometimes are found as ornament done in tattooing or painting among the Chaco Indians (see for instance fig. 66), are, according to Karsten, in some way connected with the circumstance that the spirit of illness, called »mohsek ihitek» (i. e., the arrow-shooting mohsek) uses arrows for working harm upon people, for which reason arrows may be considered as amulets.[2] This, the Indians' way of looking at things, corresponds to the old saw: »like cures like», or »taking a hair from the dog that bit one».

531 751 Figures and ornamental signs, incised or burned-in, on calabashes for household use (figs. 127, 129—132) as well as on magic rattles of calabash (figs. 170 and 181), are, at least in certain cases, to be regarded as magical protective devices against evil spirits.[3] The significance of two figures, resembling human beings, carved on the magic rattle in fig. 181.

[1] Karsten (4), pp. 8 and 10.
[2] Karsten (4), pp. 190 and 191.
[3] Karsten (3), p. 179.

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I cannot tell, but from an analogous carving from the Lengua it is very probable that they represent spirits.[1]

Most rattles contain seeds, and in many of them are also found a large number of metal fragments (see synoptical table below). The latter as a rule consist of small, square pieces of tin plate, for the most part with a side of from 5 to 15 millimetres. Bits of glass do not unfrequently occur in the rattles, although never in any great numbers; generally only a few bits of glass are found in any one rattle. In the Chaco, bits of glass are naturally extremely rare. In the rattle reproduced in fig. 181 were only found bits of tin plate and one cactus spine. Although this rattle belongs to the handle-hole type (see pp. 148, 149), it nevertheless has a hole in the bottom, with a plug of the kind I have described in connexion with the magic rattle, fig. 170. Professor Robert Fries has been kind enough to examine the different kinds of seeds that I have found in magic rattles, as well as in the bag mentioned below, and he then determined the presence of a species of Canna, a leguminous plant, a species of Convolvulaceæ, one of Sapotaceæ and a Smilax. Several kinds of seeds could not be identified from lack of material to compare them with.

Synoptic table of contents in magic rattles from the Choroti.

Riksm. coll. 03. 3.

No. of rattle	Type of rattle	Contents
386	Plugged hole through bottom. Carrying cord (fig. 170).	Seeds (Smilax and undetermined), 1 dark blue piece of glass.
385	Ditto.	Seeds (Smilax and Canna), 2 bits of zinc plate, 1 spiral spring of iron, 2 cactus spines.
390	Plugged hole through top of handle, ditto through bottom. No carrying cord. (fig. 181)	Nine bits of plate iron, one cactus spine.
384	Like foregoing, but no hole at the bottom.	Seeds (Canna and undetermined), 2 bits of plate iron.
387	Ditto.	Seeds (Smilax, a leguminous plant, and of unknown species), 34 black glass beads, 1 blue glass bead and 4 yellowish-green bits of glass.
388	Ditto.	Seeds (Convolvulaceæ and unknown), 1 piece of zinc plate, and 1 uncoloured piece of glass.

From a Choroti I obtained by barter a small bag of red cloth (Riksm. 03. 3. 391), abundantly wound round with caraguatá string, in which he said he used to keep the things that he put into magic rattles.

[1] Grubb (1), p. 75, and fig. 2 on plate following p. 76.

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778 This bag was found to contain a large number of seeds of many different kinds (fig. 182: 22–29); 39 quadrilateral pieces of plate iron (fig. 182: 12, 13, 16–18), 3 curiously shaped pieces of plate iron, about 25 mm in length (fig. 182: 15); 4 plate iron ferrules, or casings (fig. 182: 14; these were probably once mountings on leather fringes attached to a girdle of the type seen in fig. 31); 6 pieces of tin (fig. 182: 1–6); 1 turquoise-coloured glass bead (fig. 182: 20); 1 fragment of ditto (fig. 182: 21); 1 piece of uncoloured glass (fig. 182: 19); 4 blue pieces of glass (fig. 182: 30–33); and 4 green ditto (fig. 182: 7–11). Through friction against each other all these bits of glass have got their sharp edges worn off and their faces ground dull; in shape they now exactly resemble small quartz pebbles. I think it very probable that all the objects contained in this bag, or inside magic rattles, are attributed with magic power, and that, therefore, in the selection of them consideration must have been given not only to their capabilities as sound-producers, but also to their supposed magic properties.[1]

[531]

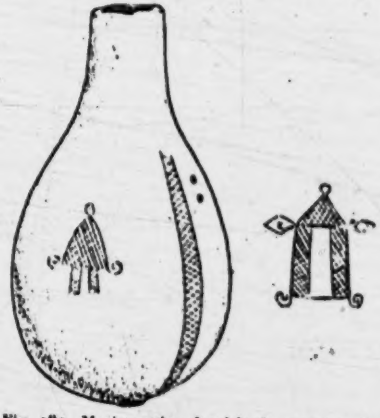

Fig. 181. Magic rattle of calabash, carved with figures probably of magic significance. Choroti, Gran Chaco, Bolivia. 1/3. Riksm. 03. 3. 390.

000 Many investigators have established the fact that primitive peoples' ornaments are very often of a magic character. Among certain tribes practically all ornaments may be looked upon as being more or less potent amulets. In my book, »Tråskfolket» (»The Batwa of Lake Bangweolo»), I have shown that among the tribes around Lake Bangweolo the belief is very widely spread that many ornaments, such as necklaces, bracelets, glass beads, etc., possess magic properties, and that they are able to give protection, not only against divers illnesses, but also against other evil things, such as wild animals, etc.[2]

That the same conception is prevalent among the Indians of South America has been set forth by many students, among whom, von den

[1] Cf. Karsten (4), pp. 143–144.
[2] von Rosen (4), pp. 160, 301–305, 351, 352 and 423.

[text continues on p. 193]

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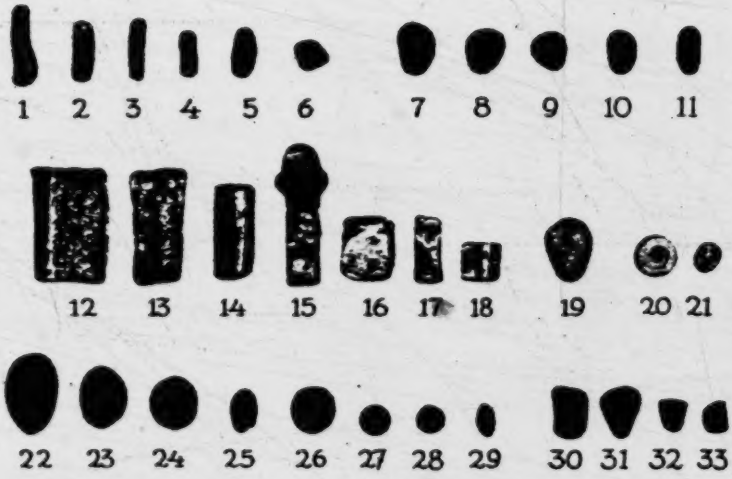

Fig. 182. Specimens of the contents of a bag containing objects for putting into magic rattles. Nos. 1—6, pieces of tin; 7—11, bits of green glass; 12—18, objects of thin plate iron; 19, an uncoloured piece of glass; 20, turquoise-coloured glass bead; 21, fragment of ditto; 22, seed of a sapotaceous plant; 23 and 24, seeds of unknown species of plants; 25, seed of a leguminous plant; 26, seed of a species of Canna: 27, seed of some species unknown; 28, seed of a Convolvulus; 29, seed of a species of Smilax; 30—33, pieces of blue glass. Choroti. Gran Chaco. Bolivia. Natural size. Riksm. 03. 3. 391.

[p. 172 is blank]

[original plate in color. - Analyst]

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Steinen,[1] Koch-Grünberg[2] and Karsten[3] have made specially thorough research into questions connected with this matter.

From primitive peoples it is, however, exceedingly difficult to obtain thoroughly reliable information. In order to get rid of a tiresome questioner, a negro, or an Indian, will often reply in the way he thinks most pleasing to his interrogator. Information received by means of an interpreter, is not unfrequently unreliable. This explains how statements which are absolutely erroneous have found their way into the works of even the most painstaking ethnographers. Another pitfall consists in drawing hasty conclusions based on analogies. There is this to be remembered; that primitive peoples' process of thinking sometimes runs along lines which deviate entirely from those of civilized man, for which reason conditions which, to us, appear analogous may, to the primitive mind, not necessarily appear as being in any way connected.

Although it has not yet been conclusively proved that all Choroti ornaments are of a magic character, it is nevertheless not improbable that such is the case. About many of the ornamental objects of the Choroti there are thoroughly trustworthy proofs as to their magic character. When from two or more members of a tribe circumstantial and practically identical, accounts of the magic properties of some ornamental object have been obtained, there can, of course, be no hesitation in accepting that the object in question is, by the Indians, regarded as a kind of amulet.

Among the finest of Choroti ornaments possessing a magic character I am inclined to class the frontlets and hair-nets of red woollen fabric (figs. 41, 46 and 47) that the Choroti use on occasions of especial importance. Several Choroti stated to me that these full-dress articles of apparel were worn not only as ornaments, but also as charms against evil spirits, and the same belief prevails among the Lengua as regards *their* ornaments of a corresponding kind (see fig. 42).[4]

That the Choroti regard their ear-lobe discs (see figs. 53—55) as possessing magic properties, I have already stated in connexion with my account of the character of those ornaments (pp. 62—66).

[1] E. g., von den Steinen (2).
[2] E. g., Koch-Grünberg (3).
[3] Karsten (4).
[4] Grubb (1), pp. 70 and 71.

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301 751 As regards snail- and mussel-shell necklaces (figs. 56—58) it should be specially mentioned that those of the first-named kind, at least, are by the Choroti looked upon as amulets for warding off illness and other evil things.[1] It is not improbable that necklaces made out of glass beads, which have been obtained from the whites, are also held to be amulets. This because of the fact that, among many primitive peoples, the belief has been observed that such glass beads as in modern times they have acquired by way of trading[2] possess magic properties,[3] as well as do the glass-[4] or stone beads[5] that they themselves have found in ancient dwelling-site deposits or graves.

Occasionally the Choroti wear anklets of birdskin, or ostrich (Rhea) feathers tied together (fig. 59). On page 71) I have mentioned that [825] these anklets are not exclusively ornaments, but that they also serve a purely practical purpose. The fact is that the Choroti, as well as other Chaco Indians, regard them as a protection against snake-bite, in that a snake is more likely to strike at the feathers that are on the anklet than at the leg, or foot, of the one who is wearing it. Karsten states, on the authority of Grubb, that the Lengua for the same reason wear anklets made of feathers. But to Karsten this natural explanation is not sufficient, for he remarks that Grubb might have added that these anklets are, at the same time, looked upon as amulets, because the Indians believe that an evil spirit accompanies the snake venom in entering the foot of a person bitten.[6] Karsten endeavours to show that all feather ornaments are, by the Choroti Indians, regarded as magic objects.[7]

006 Most primitive peoples ascribe magical properties to many of their belongings. For example, our Viking forefathers largely regarded their weapons and other equipment as possessing magical powers. It is well known that the Vikings believed that, for instance, swords, and other edged implements, in some magic way could give their owners protection against evil spirits. But the main purpose of swords and edged tools was

[1] Karsten (4), p. 139.
[2] See for example von Rosen (4), p. 305.
[3] See fig. 182: 20—21, and text on pp. 169 and 170.
[4] See, e. g., von Rosen (1), p. 251.
[5] See, e. g., von Rosen (1) p. 290.
[6] »He might have added that they are at the same time regarded as magical charms, since with the snake's poison an evil spirit is believed to enter the foot.» Karsten (4), p. 119.
[7] Karsten (4), Chap. III.

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as a rule a practical one, although the articles might, *apart from that,* be of magic use. In the same way many of our Northern ornamental objects might be attributed with a magical character, although my belief is that, e. g., the »heirloom» silver ornaments of our peasantry were more appreciated because of their decorativeness than for any supposed magic properties of theirs. Naturally, also among us there were then ornaments (e. g., Tor's hammers) whose supernatural-, was more obvious than their decorative, character, and such cases may be considered as typical amulets.

These points of view I also consider applicable when reviewing the ornaments of the Choroti.

For it appears to me that, in the case of the Choroti, a differentiation can be made between typical amulets and ornaments to which magic properties are ascribed.

Objects of the latter kind are always worn in full view; they are usually carefully made or worked, and have, as a rule, a decorative, often startlingly showy, appearance. If one asks a Choroti why he is wearing such an ornament, the answer which one as a rule obtains is merely that it looks well, or that it is useful to wear. Occasionally one may get the reply that the ornament is of use against evil spirits, but in such cases it is my firm opinion that, to the Indians, the object's magic character is of less consequence than its being pretty or making a pompous show.

Such objects as I should like to call typical amulets are exclusively, or mainly, of a magic character. Amulets of this kind are often, although not always, entirely devoid of all pretence to beauty. They not infrequently consist of unworked objects, from nature, such as claws of animals, head-carapaces of armadillos, bits of skin, tufts of hair, and other things. They are often worn so as to be out of sight, say in a bag, or under the clothes. Figs. 183 and 184 represent typical specimens of this kind of amulet. To distinguish between these two groups of objects *only from their appearance*, is, however, quite impossible. It must be remembered that claws, teeth, etc., are capable of being put together and arranged into ornaments which are very attractive from an esthetic point of view, but as the supposed magic power of the claws and teeth ought rather to increase than decrease by being placed in contiguity, ornaments that have been composed in this way would constitute implements in which the magic qualities were valued by their owners far more than the esthetic.

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301 That in primitive man there is an instinct for self-ornamentation, I
789 consider cannot be doubted. In children this instinct is found, and it is possibly also traceable among animals.[1]

[224]

Fig. 183. Hunting amulet. A jaguar or puma claw. Choroti, Gran Chaco, Bolivia. 1/1. Riksm. 03. 3. 399.

Fig. 184. Hunting amulet. The carapace of an armadillo's head. Choroti, Gran Chaco, Bolivia. 1/1. Riksm. 03. 3. 400.

000 According to my opinion, flowers and snail shells were certainly used as ornaments by our race long before the dawn of such mental development as made possible the idea of supernatural things. Prior to this, no »magic» properties of any kind were, of course, ascribable to natural objects. The faculty of sensing beauty in a material form is bound to be

[1] Apes and monkeys, in captivity, are sometimes said to try decorating themselves with necklaces, hats, etc. This may, however, result only from a desire to imitate. More remarkable, it seems to me, is that elephants, camels, horses and dogs are said to show evident satisfaction when gaily decked out.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

of older origin that conception of things supernatural, wherefore it follows 000
that purely decorative art must be older that magic art.

In the course of time, ornaments have, from a variety of reasons, become attributed with magical properties, *without having, on that account, necessarily lost their character of being ornaments.*[1] At a still later stage it happens that the supernatural properties that once were ascribed to the objects are considered unimportant, and therefore by degrees fall into oblivion. Probably the Choroti will soon arrive at this stage of development in respect of their ornamental objects, and thus Karsten has rendered a very important service to science by having »fixed», so to speak, this stage of the evolution of Choroti culture, even if he, as is my opinion, at times overshoots the mark by giving undue prominence to the magic side of the question.

Singing, dancing, drum-beating and rattle-shaking are by the Choroti 789
regarded as potent in incantation and exorcism. This is a well known 533
fact, to which I have also referred on pp. 182, 183 in my account of a funeral dance which took place in a Choroti village.[2] That blowing a kind of disc shaped whistle is done for the purpose of driving away evil spirits I have already mentioned (p. 144). As regards the supposed magical character of a game of chance called »chuke», I also beg to refer to what I have said in the foregoing (see p. 155).

A popular belief, which is to be met with practically all over the world, 826
is that the mental and physical force in man is in some supernatural way centred in the hair of his head. As an instance of this, Karsten refers back to the well known legend about Samson, the hero who lost his strength as soon as Delilah had shorn him of his hair. Among us Northeners, as among other European peoples, the belief has also existed

[1] It is, inter alia, from Stolpe's works — e. g. Stolpe (1) — a well known fact that these emingly purely geometrical ornaments of primitive peoples often can be traced to symbolic pictography. But »symbolic pictures may, in their turn, have been developed out of geometrical designs. »Von den Steinen is now of opinion that a whole group of so called geometrical ornaments have evolved from textile designs, but that they, in being transposed from plaited or woven work to other materials, and carried out in engraving or painting, then embarked upon an independent existence, finally carrying with them a whole series of the most varied pictorial ideas, according to the requirements of the artist's inspiration, and that these latter creations had no essential connexion with the original geometrical designs.» The passage within the quotation marks is a summary made by Seler of von den Steinen's opinion as regards certain ornaments. Seler (1), p. 48.

[2] Cf. also Karsten (4), p. 152 (1), pp. 14, 33 and 34 (2), bottom picture in plate following p. 22, and Nordenskiöld (13), pp. 89—91, and 105.

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826 that the hair in certain magic rites could represent the person from whom it had been taken.[1] We find a similar belief existent among the Choroti who, because of it, carefully burn the hairs that they cut off or pluck out. They also believe that the souls of the dead, as well as evil spirits, are [764] capable of working harm on the living by means of the hair, and on this belief is based the custom of the Choroti women of cutting off this adornment on the death of their husbands.[2] Similarly, the practice universally prevalent among the Choroti of plucking out eyebrows, eyelashes and other hairs of the face, the hairs of the armpits and about the genital parts, is probably due to this belief.[3] When a Choroti Indian takes a scalp, or fixes the scalp lock of a slain foe under his frontlet (see pp. 60, 61 and 103), it is probable that he considers that he has not only succeeded in obtaining a material trophy, but that the possession of the scalp or scalp lock to some certain extent confers upon him power over the spirit of his fallen adversary.[4]

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Fig. 185. Bone awl for blood-letting. Probably made out of an ulna of a puma. The awl is wrapped round with a red, woollen fillet, to prevent it from penetrating too deeply into the muscles. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 82.

Fig. 186. Bone awl for blood-letting; also used for tattooing. Probably made from an ulna of a raptorial bird. The awl is wrapped round with grey and red woollen yarn (the latter nethermost) so as not to enter too deeply into the flesh. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 83.

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In the foregoing (pp. 63 and 75) I have mentioned that the Choroti on certain occasions perform a kind of magic blood-letting by means of bone awls. I have also given an account of the Indian conception of the effects of this kind of blood-letting (see pp. 63 and 64). I will now add that I think it probable that the *material* of which the awl consists also plays a certain part.

Nordenskiöld has observed that the Ashluslay, when they are out looking for nests of wild bees, prick themselves above the eyes with a

[1] Even as early as in the Wærend law, mention is made of hair being used in witchcraft.

[2] See page 182.

[3] Karsten (4), p. 10.

[4] Cf. Karsten (4), p. 60.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

wooden awl, so that blood flows.[1] In reply to my question, Nordenskiöld has been kind enough to tell me that he never saw the Indians using awls of any other material than wood for this purpose. On the other hand, both he and I, and other Chaco students, have seen Choroti pricking themselves with bone awls (figs. 185 and 186) when feeling tired. In order to ascertain whether the Indians in making their bone awls gave preference to any particular bone of any particular animal, I asked Professor Lönnberg to try and identify the animals from which the material had been taken for all the bone awls in my collection. Professor Lönnberg very kindly acceded to my request, and here below I give the result of his investigation.[2]

Awl No. 03. 3. 183. Upper part of right ulna of a large feline animal, probably a female puma.
» » 03. 3. 82. » » » left » » » feline animal, probably a young puma.
» » 03. 3. 182. » » » » » » » » » (somewhat smaller than the foregoing).
» » 03. 3. 84. Lower part of canon bone of small ruminant (deer calf?).
» » 03. 3. 184. » » » » » » » »
» » 03. 3. 185. » » » » » » » »
» » 03. 3. 83. Probably a fragment of ulna of a bird (raptorial?)
» » 03. 3. 186. » » » » » » » » of a species somewhat smaller than the foregoing.

The remainder of the bone awls that were submitted by me to Professor Lönnberg consisted of fragments, impossible of determination.

Unquestionably, it must strike one as peculiar that out of eight determinable pieces of bone, three of them probably consist of ulnæ of such a ferocious animal as the puma (the killing of which to the Indians is a matter of deadly peril). Another thing, which is in my opinion noteworthy, is that two of the awls probably consist of ulnæ of raptorial birds, and that the three remaining ones all consist of canon bones of some species of small ruminant. In fig. 81 I have reproduced an awl consisting of the jawbone of a Siluroid: this implement, however, at the same time being a kind of stamp for applying red paint to the face. Whilst paying a visit to the Gothenburg Museum, I was, by the courtesy of the Keeper of Ethnography, Baron Nordenskiöld, given the opportunity of going through the collection of bone awls that he has acquired from Indians of the Chaco, which collection now forms part of the Museum. On examining

[1] Nordenskiöld (13), p. 49.

[2] In accordance with letters dated July 2 and 18, respectively. Rockefeller collection of Manuscripts, Volume 1931, letter I..

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412 this material it at once became apparent to me that seven of these awls were similar to those that Professor Lönnberg had identified as being from ulnæ of some large species of feline animal. I obtained permission to borrow these seven awls[1] with a view of ascertaining, if possible, through Professor Lönnberg, from what animals they were derived. After Professor Lönnberg had examined these objects too, I got from him the following report: »From all I can see, the implements herewith returned to you are also manufactured out of ulnæ of puma.»[2]

757 412 In the men's satchels, or bags, that I have acquired from the Choroti, I have as a rule found *several* bone awls, together with, now and again, a wooden awl. This observation of mine is not to be explained away by my having happened to examine Indian carrying-bags which by mere chance contained a number of bone awls, because Nordenskiöld, who lived among Chaco Indians for a much longer period than I did, noticed exactly the same thing. He writes: — »In *every* Choroti or Ashluslay Indian's carrying bag one finds *quite a number* of bone awls, with which he pricks himself when feeling fatigued.»[3] If it were only a question of puncturing the skin so as to make the blood flow, it would of course be sufficient to possess only one bone awl. As we know, blood-letting is resorted to by the Indians of the Chaco for the attainment of various ends. As has been said; when wishing to locate nests of wild bees, they always use a wooden awl. Can it possibly be that the material, of which this particular kind of awl has been made, is taken from some kind of tree especially favoured by the bees in their nest-building? When the Indians, in bow-shooting, draw the arrow towards the ear (see p. 63), and then find that the arm trembles, they jab a bone awl into the arm. It may be wondered if, on those occasions, they make use of the above-mentioned awls made from ulnæ of powerful feline animals, or raptorial birds? When feeling tired after a long march, for instance, the Indians give themselves a prick in the leg. Is it then that bone awls made out of canon bones of young deer are put into use?

It would be very interesting to learn from what animals the material of other bone awls from the Chaco peoples, kept at Swedish and foreign museums, have been taken. It is only by extensive examination in this

[1] The awls are marked B. 392, B. 395, C. 248 (346?), D. 1314, D. 1320, D. 1321 and D. 1322.
[2] Letter dated Sept. 14. Rockefeller collection of Manuscripts, Volume 1921, Letter L.
[3] Nordenskiöld (13), p. 49. Italics by von Rosen.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

way, *and by renewed research among the Indians*, that we shall be enabled to obtain a thorough knowledge of their conception of magic blood-letting by means of awls.

In the foregoing I have mentioned that Choroti bow-staves are sometimes provided with a small skin casing, slipped on, and that on opening one of these casings I found that it contained excrements from some herbivorous animal. It is of course impossible to tell with certainty what the motive was for putting on this skin casing (see pp. 88 and 89), but I think it probable that it was put on the bow for some magic reason. It is noteworthy that it contained excrement. The fact of this being so is a circumstance that, in my opinion, especially points to the casing being of a magical character, for, according to the Chaco Indians' way of thinking, certain excrements possess magic properties and are often made use of in casting spells.[1]

All kinds of illnesses are by the Choroti considered to be caused by evil spirits. As yet, however, we know but little of these Indians' conception of the character and curing of different illnesses. Once Nordenskiöld called in medical aid from a medicine man among the Choroti, and this is how he describes the way in which the medicine man set about it:

»On many occasions, in the villages, I have seen the medicine men practising their profession. One day, among the Choroti, when I was feeling a bit seedy, I called one of those gentry to my camp. Giving out that I had a severe pain in the lower part of my chest, I asked him if he cared to cure me. He promised to come to me in the evening. At nightfall he arrived, accompanied by a colleague. They insisted on being left alone with me. Moberg and Andersson were consequently turned out, and sentries were posted so as to prevent anyone unauthorized gaining access to the hut. For a start, they made me strip to the skin, and then lie down. They stroked me with their hands over the chest, the sides of my body and the stomach, and then they spat on me. After that, they set to blowing on me, and then they laid themselves down and sucked hard at my chest, in particular at the spot where I had complained of the pain. After having sucked for a while, they turned away and pretended to vomit. Whatever they vomited up in this way, they did not show me, but, as they squeezed it between their fingers, it looked as if they had been squeezing worms. This performance lasted, I think, the

[1] See, for example, Nordenskiöld (13), pp. 95 and 98.

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better part of an hour, and when I was allowed to put on my clothes again, my body was full of large, red, marks from the sucking. The two worthies entertained me during the whole doctoring process with a lively conversation which I did not understand. From the pantomimic show I could, however, gather that it was a consultation. For a fee I gave one of the physicians a shirt and the other a pair of tight-fitting drawers.»[1]

As mentioned before, in case of illness the Choroti try to back up the work of the medicine man by dancing; such dancing is then regarded as magically counteracting the influence of the spirit of the illness.[2] The spirit of the illness is by the Choroti called »mohsek ihitek», i. e., the arrow-shooting spirit, which, as I have pointed out in the foregoing, signifies that the Indians believe that the »mohsek» in question has the power of causing illness by arrow-shot. The belief that illnesses could be caused by »fairy-darts» is met with among a number of different peoples, and, as we know, was formerly common also in Sweden.

The Choroti also try to cure themselves of illnesses by internally taking medicines consisting of decoctions of herbs, etc. It is, nevertheless, possible that the Indians themselves regard these, which we consider natural, remedies as being magical.

When an epidemic disease causes many deaths in a Choroti village, it is the practice of the Indians to burn the huts and remove to another site. This they do, either from fear of the spirits of the dead,[3] or in order to dodge the attack of the spirit of the disease.[4]

On the death of her husband, a Choroti widow cuts off her hair and burns it, and paints her face black with soot. We may take it that these signs of mourning also are of magical import. As an instance of this, the Choroti say that widows cut off their hair so that it shall not be a means of their husbands' spirits molesting them.[5]

One evening when after a long day's shooting I arrived at the Choroti village situated near our camp at Tatarenda, I was met by the sound of monotonous singing, muffled drumming, and the noise of magic rattles.

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[1] Nordenskiöld (18), pp. 93 and 96.

[2] Karsten (1), p. 14.

[3] Karsten (2), p. 30.

[4] Cf. Karsten (1), pp. 32 and 33.

[5] »When I asked the Choroti why a widow cuts and destroys her hair, I received the answer that the dead husband, who wants his wife to follow him to the grave, is believed to attack her through the hair; in order to rid herself of this danger she shaves it off.» Karsten (4), p. 61.

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Of all this there was a cessation as soon as I had approached the village 769
near enough for the dogs to give warning, by barking, that a stranger was coming. In answer to my question why there had been singing, drumming and shaking rattles, I was told that there had been a dance for somebody who had died in the village. From what the Indians represented to me I gathered that the dancing, the singing, and the »music» had been performed in order to protect the soul of the dead person from being attacked by evil spirits, but it is possible that, instead of this, the dancers were aiming at protecting the villagers from being harmed by the spirit of the deceased, or from the evil spirit who had killed the newly dead person. The latter explanation is more in correspondence with other observations of the customs of the Choroti Indians.

In the literature one finds a statement that the Choroti bury their dead 764
in a lying-down position.[1] This mode of burying does occur among the 184
Choroti, but these Indians also inter their departed ones in a hunched up, squatting position.[2] As an instance, the Choroti who were living near Tatarenda declared that they usually buried their dead in the last-mentioned position. This mode of burial may possibly be connected with cultural influence from the neighbouring Chiriguano, but in such a case that influence must have been active also among the Choroti living right away on the Pilcomayo, for all the Choroti skeletons (three) that Nordenskiöld excavated in the neighbourhood of Fort Crevaux had been buried in a sitting posture. Of the three Choroti skeletons unearthed by him at Caiza in the Tatarenda district, one was found »in a doubled-up posture, with one hand on the top of the head and the other placed on the chest».[3]

During our journey Nordenskiöld only excavated these six Choroti skeletons. He has kindly permitted me to publish his notes on the circumstances under which the skeletons were found. The data above referred to I have taken from the catalogue supplied by Nordenskiöld to the Ethnographical Section of the Riksmuseum, in which his original notes upon modes of burial are embodied (see preceding foot-note).

Even in my earliest published account of the Choroti Indians I made 764

[1] Karsten (3), p. 304.

[2] von Rosen (3), p. 13.

[3] This according to Nordenskiöld's original notes in the Riksmuseum inventory, 03. 5. Whether the skeletons excavated at Caiza were found in a sitting or lying-down position is not expressly stated in the notes. But as regards the Choroti skeletons excavated at Crevaux, Nordenskiöld especially points out that they had been buried in a »sitting posture».

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764 a point of relating how they sometimes put down bowls with water and food in the graves with their dead.[1] From the table which here follows it will also be seen that in Choroti graves may be found not only food and water bowls (clay pots and calabashes) but also that the departed one may even be supplied with a tobacco pipe. According to my opinion, the presence of food and drink in graves points to the Choroti believing in an existence following upon the death of the body, and that the soul is in need of food and drink.

According to Karsten, the Choroti occasionally also place earthenware pots filled with water on the graves. About this he writes as follows: »The Choroti of the Chaco, who bury their dead in a lying position, customarily place at each end of the grave a clay pot half-filled with water. These water-filled clay pots are not meant as an offering to the spirit of the deceased, for that kind of offering is unknown to the Choroti. It is more probable that the pots are put on the grave on account of some other superstitious belief, and that to them is ascribed some supernatural power that is able to keep the demon of death at a distance.«[2]

It is possible that the purport of the *above described* custom is the one that Karsten considers it to be; on the other hand, to my thinking it is almost certain that the articles *placed in the grave* (it may be food and drink) are intended for the use of the dead.

If this is not the case, then it follows that e. g., the grave furniture shown in the synoptic table on page 185 must be regarded as amulets for warding off evil spirits from the dead. In the case of the snail shell (Borus oblongus), the theory that it was included in the grave equipment for that purpose is admittedly not improbable, but that the calabash bowl, the clay pot, leather bag and tobacco pipe were placed in the grave as amulets, is a thing I consider as being hardly probable. The circumstance of the Choroti interpreter telling me that the bowls of food and drink that the Choroti place in the grave with their dead are meant for provisioning the spirit on its journey, I do not, per se, accredit with any

[1] von Rosen (3), p. 12.

[2] Translated: Karsten (3), p. 204. — »Die Choroti im Chaco, die Toten in liegender Stellung begraben, haben die Gewohnheit, an jenes Ende des Grabes einen halb mit Wasser gefüllten Tontopf zu stellen. Diese mit Wasser gefüllten Tontöpfe sind nicht als Opfergaben für den Toten gemeint, denn solche Opfergaben sind den Choroti vollständig unbekannt. Es ist wahrscheinlicher, dass sie aus irgend welchen anderen abergläubischen Gründen auf das Grab gestellt werden und dass eine übernatürliche Kraft ihnen zugeschrieben wird, von der man annimmt, dass sie den Todesdämon fernhält.«

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Synopsis of circumstances relating to finds of Choroti skeletons.

Compiled by the Author from Erland Nordenskiöld's notes, Riksm. Inventory, 03. 5.

Catalogue No. Riksm. 03. 5.	Locality of find	Sex of the buried	Posture of skeleton	Character of grave	Grave furniture	Remarks
10	Crevaux · Gran Chaco Bolivia	Woman	Sitting	A round pit	None	The skeletons numbered 10, 11 and 12 are of members of the same family. They had been buried together
11	»	Man	»	»	»	See above
12	»	Boy or girl	»	»	»	»
13	Caiza Gran Chaco Bolivia	Man	Crouching, one hand on the top of the head, the other on the chest. Not stated whether sitting or lying down	A rounded, oblong pit	A calabash	—
14	»	»	Doubled-up. Whether sitting or lying, is not stated	—	A clay pot, and a leather bag containing a tobacco pipe and some seeds which Nordenskiöld thought possibly tobacco seeds	—
15	»	Woman	»	A round pit	The shell of a land snail (Borus oblongus), see fig. 43	—

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

764 decisive weight, for, as I have pointed out in the foregoing, one needs to use the utmost caution in accepting information which has been obtained through an interpreter. But as an eminently striking corroboration of the 764 interpreter's statement there is, I may point out however, the fact that 171 the Mataco Indians, who belong to the same ethnical group as the Choroti, often put down pots of food and drink in graves, and that the Mataco believe that the dead actually partake of the offering. The fact of this being so was easy enough of verification among the Mataco Indians who, already at the time of our journey, had to a certain extent acquired the Spanish tongue. At Rio Seco Nordenskiöld excavated a Mataco grave, and in this he found a clay pot. About this he writes as follows: »When I asked them what the pot was for, they told that it had contained water which the occupant of the grave had drunk on his journey; a reply showing that they have a firm belief in a life beyond the grave.»[1] Bearing in mind how closely the customs and usages of the Mataco upon the whole correspond with those of the Choroti, I am of opinion that, from consistent statements of the Choroti interpreter and Mataco Indians, we have very strong reasons for supposing the food- and drink vessels, the tobacco pipes, etc., that have been found in Choroti graves, were intended for the use of the dead.

[1] Nordenskiöld's notes, Rikesmuseum inventory, 03. 5.

[pp. 187-268 not processed]

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Comparative ethnographical studies

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AN ETHNO-GEOGRAPHICAL ANALYSIS OF THE MATERIAL CULTURE OF TWO INDIAN TRIBES IN THE GRAN CHACO

[Title Page]

by

Erland Nordenskiöld

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SK6 Choroti SK6

Comparative ethnographical studies

I

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AN ETHNO-GEOGRAPHICAL ANALYSIS OF THE MATERIAL CULTURE OF TWO INDIAN TRIBES IN THE GRAN CHACO

by

Erland Nordenskiöld

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GÖTEBORG 1919
KLANDERS BOKTRYCKERI AKTIEBOLAG

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PREFACE

My intention to collect my comparative work on the material development of the South American Indians into three volumes and make it accessible to the American public, has been done at the suggestion and expense of Consul-General Axel Johnson, the managing director of the steamship line that bears his name. The Johnson Line has to a very great extent helped to further the connection between the South American republics and Sweden. Thanks to this there is now a regular service of steamers from Sweden to most South American harbours of any importance.[1])

The Johnson Line has also endeavoured to further Swedish exploration in South America. Swedish explorers who have lately travelled in that continent, have in every way been supported by it in their work. Most explorers have also had the privilege of going from Sweden to South America in the comfortable Johnson Line steamers. Consul-General Johnson has rightly realized that the scientific results of explorations by Swedes in South America in the first place should be made to benefit South American explorers. Consequently he has, as

[1]) *The exports from Sweden to South America, as well as the imports from that country have greatly increased in recent years. For instance in 1904, when the Johnson Line was founded, the value of the exports from Sweden to the Argentine was £ 41 550; in 1913 it amounted to £ 488,055. Corresponding figures for Brasil are £ 5 500 and £ 126 830. The steam tonnage of the Johnson Line was 44 000 tons d. w. in 1913, including five motor ships of the latest type. Now, after the World War, it is a fleet of 17 ships, making a total of 119 000 tons d. w. with 9 motorships. Since the Johnson Line was started several good Swedish firms have been established in Rio de Janeiro, Buenos Aires, Santiago de Chile and other places. In Sweden a knowledge of and an interest in South America has been immensely promoted by the Johnson Line.*

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stated above, defrayed the expense of publishing this book. He hopes, as the undersigned does, that not only the commercial but also the scientific interchange between the South American republics and Sweden will be a bond of mutual friendship and intercourse between the peoples of these countries. The rapid development of the South American states in every department during the last decades has been observed in Sweden with respect and admiration and we are convinced that this development after the world war, will progress with still greater speed.

The present edition is a translation made from the original edition published in 1918, and the subject matter in the two editions is practically identical. Opportunity has been taken to correct a few mistakes and to add a few additional notes. For the translation I have to thank my friend, Mr. G. E. Fuhrken, M. A., of the University College of Gothenburg.

Gothenburg, April 5, 1919

Erland Nordenskiöld.

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I.

Introduction and Plan of the Work.

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In the following pages I will attempt to analyse the material culture of two Indian tribes and contribute to our knowledge of their history. For the material of my investigations I have taken two tribes in the Gran Chaco of S. America, the Choroti and the Ashluslay, of whom I gained some considerable first-hand knowledge during my journey in 1908—09. It is only of late that these tribes have been made the object of study.[1]) Their culture is much of the same kind, and has been preserved in tolerably complete primitiveness.

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HUNT[2]), who has studied the language of the Choroti and the Ashluslay, would identify the latter with the Chumupi, a Chaco tribe that has been known for a long time, but his assumption seems to me insufficiently established. In proof of this I here give a few common Ashluslay words, taken from HUNT's list of words, and place beside them equivalent Chumupi words, taken from LAFONE QUEVEDO[3]).

[1]) Cf., in addition to my own works, those of HUNT, v. ROSEN, HERRMANN, and LEHMANN-NITSCHE.

[2]) P. 257. In these notes only the page or the illustration is referred to, to which attention is drawn. The title of the work in question must be sought in the bibliography. Where more than one work is given under an authors name, a number is assigned to each work and quoted in these notes.

[3]) (1), p. 122.

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	Ashlúslay. acc. to HUNT.	*Chunupi.* acc. to FONTANA.	PELLEGRINI.
Head	kâs-Shatish	Niscan	Niscun
Hair of the head	thlai-Yis	Nojovee	Nahono
Eye	Tosij	Tacqui	Tuclecbapé
Nose	Naash	Nijiveppe	Nihip
Ear (my)	Yi-kfe	Masleguep	Maij-lumbepp
Mouth	Ashi	Guevep	Lóe-quebebb
Hand	Pakat	Isivep	Itzibeb, I-sip
Sun	Hyanchâklai Shanchâklai Finchâklai	Oló	Oló, Olôh
Moon	Hyuwekla Shuwekla Fyuwekla	Cocpi	Chuhpi
Fire	Itoj	Nie	Ni-hiet
Water	Inaat, Inat	Maa	Mná

As can be seen, there is not the least resemblance between the Ashluslay and Chunupi languages.

The Choroti language is closely akin to that of the Mataco. HUNT holds the tribes belonging to the Mataco group to be very old inhabitants of the Chaco, from whose language other people took words for plants and animals that were new to them when they migrated to the Chaco. The Ashluslay language seems to have much in common, both lexically and grammatically, with those of the Mataco and the Choroti.

BRINTON[1]) was already of the opinion that the Mataco group represented the oldest population in the Chaco. He writes, »It is noticeable that all its members reside in contiguity, as if driven together by outer pressure on all sides.«

[1]) (6) p. 181.

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Ashluslay SK5

The Ashluslay are called *Suhin*[1]) by the Lengua-Mascoy, *Etéhua* by the Tapiete, *Áshli* by the Choroti, *Sówua* or *Sówash* by the Mataco, and *Sotegraik*[2]) by the Toba. A 101

They call themselves *Ashluslay*, as I have ascertained, and this is confirmed by HUNT[3]). The latter says it is the settlers on the lower Pilcomayo that call them Chunupi, a circumstance which has evidently misled him to identify them with a tribe of that name which has been known for a long time. The statements of settlers are to be taken with caution. An error of the same kind is to call the Ashluslay Tapiete.

The Choroti call themselves *Yóshuaha* (*Yóʃuaha*, acc. to HUNT.) However, I have preferred the former name, this being, moreover, the form in which it generally appears in the literature of the subject. It derives originally from the Chiriguano. They are called *Mánue* or *Mániue* by the Mataco. C 101

No archaeological investigations of any kind have been carried out in the territory of the Choroti and Ashluslay Indians. Not a single old grave, not one old dwelling has been examined there. And probably an archaeological examination of their territory would yield but little. It is exclusively the modern civilisation of these Indians from which we will try to draw some conclusions anent their history. A C 102

The Choroti and the Ashluslay live on and in the vicinity of the Rio Pilcomayo, a considerable river which flows down from the Bolivian plateau into the Rio Paraguay. A C 131

For the greater part the Rio Pilcomayo is not properly navigable. About where it cuts the tropic of Capricorn it loses itself in extensive swamps, the well-known «Esteros del Padre Patiño». It has a very unsettled course. More than once it has changed its course, and as you go from the A C 133

[1]) HUNT, p. 457.
[2]) Fric (1) p. 216.
[3]) p. 457.

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Ashluslay SK5

A C 133 river into the interior you will find numerous remains of old river-beds, which in places now form lakes. A few miles from the Andes there is not a stone to be found in the Chaco. The soil consists of fine earth, which is transformed in the dry season into whirling dust, and in the rainy season into mud. In the dry season large tracts are flooded. The Rio Pilcomayo is also of great importance to the Indians on account of the abundance of fish in it.

A C 137 The woods alternate in the Gran Chaco with grassy plains. In some districts there are considerable clumps of palms, not those with paripinnate leaves, which are so useful to the Indians, but with fanshaped leaves, which are of little use. There are no trees from whose bark cloth can be made, as in the primeval forests of N.E. Bolivia. In the woods there grows, however, a spiny plant[1]), known as Caraguatá[2]) or Chahuar[3]). It is of great importance to the Indians, its filaments providing them with material for string rope, clothes etc.

The arrow-grass[4]) which can be used for so many purposes, is lacking in the Chaco. Edible wild fruits occur in the Chaco in an abundance that is quite unusual in S. America. Some of these, such as Algarrobo[5]) Chañar[6]) Tusca[7]) and Mistol[8]), are of supreme importance to the Indians. The abundance of wild fruits, as well as the intensive dryness during part of the year and the floods during another part, account for agriculture being so undeveloped in the Chaco.

A C 136 The stock of game is poor in the interior of the Chaco, or at least in such parts as I have visited. The most impor-

[1]) Bromelia.
[2]) Guarani.
[3]) Quichua.
[4]) Gynerium saccharoides.
[5]) Prosopis.
[6]) Gourliea decortitans.
[7]) Acacia aroma.
[8]) Zizyphus Mistol.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
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A C 136

tant bags are field-voles, and in some places ostriches and small deer.

A C 132

The Chaco is intersected by the tropic of Capricorn, and is as a rule very warm. When the cold S. wind sweeps over the plains, however, it is bitterly cold, especially in May and June, and then the Indian, too, likes to wrap himself up in something warm.

A civilization very similar to that of the tribes here mentioned is possessed by their neighbours, the Toba, Mataco, Tapiete and Lengua, as well as some other Indians belonging to that part of the Chaco which is included in the Republic of Paraguay.

In reality the present work deals, not only with the civilization of the Choroti and Ashluslay Indians, but equally with that of the Mataco, Toba, Tapiete and Lengua.

In the Chaco Boreal dwell the little known Tsirakua Indians. Near the Andes dwell the Chiriguano and Chané. The former of these, who are Guarani Indians, emigrated to these districts as late as the early 16th century. They came from the territory E. of the Rio Paraguay.[1])

It was the Chané Indians, at least in part, that had to yield to the Chiriguano the territories where the latter settled at the beginning of the 16th century, and where they still live to-day. They made slaves of the Chané. Remains of this tribe still dwell, as we have mentioned, in the same parts as the Chiriguano. They are now Guaranified.[2]) Yet a few of the Chané still have something of their original language. It is an Arawak language, and thus belongs to the most widely spread linguistic family in the whole of America. At the beginning of the 18th century numerous Chané Indians were still living in the Chaco Boreal, not far from the Rio Paraguay, where they were vassals of the warlike Mbayá. They are described as being of a higher civilization than their masters. Sánchez Labra-

[1]) Nordenskiold (13).

[2]) Nordenskiold, (8 B) p. 157.

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dor, to whom we are indebted for a detailed account of their manners and customs, calls them Chaná.

As far as we know, the Incas never seem to have conquered the Gran Chaco. Not until the middle or the end of the 15th century, according to tradition[1]) did they conquer the mountainous region between Cochabamba and Sta. Cruz de la Sierra, under Tupac Inca Yupanqui. On the other hand they presumably extended their rule in N. Argentina as far as Tucuman, and therefore to the Chaco Austral.

Thanks to the researches of the distinguished Swedish archaeologist, ERIK BOMAN, and others, numerous objects have been exhumed in N. Argentina which are characteristic of the Incas. MAX UHLE[2]) has proved beyond doubt that the pre-Incan Tiahuanaco or Aymara civilization extended to N. Argentina.

This remarkable civilization, called after the famous Tiahuanaco ruin, also touched the Chaco at another spot. In the district between Cochabamba and Sta. Cruz de la Sierra I found quantities of pottery undoubtedly attributable to the same civilization.[3])

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This shows us that in studying the history of the Chaco tribes we may expect cultural influences from the Guarani Indians that came from the east, i. e. the Chiriguano, from the Arawaks, i. e. the Chané, and above all from the civilized tract in the west, i e. from the bronze age civilization of the Quichua and Aymara, which in many respects stood so high. Probably, too, cultural influences may have reached the Chaco tribes from the civilized tract in the west through N. Argentina, i. e. by means of the Diaguita and Humahuaca. We might even expect to find among the Choroti and Ashluslay cultural influences deriving from the tribes that in the south inhabited the Argentine pampas.

[1]) NORDENSKIÖLD (14).
[2]) UHLE (3).
[3]) NORDENSKIÖLD (14).

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To these must be added obvious cultural elements that have come directly or indirectly from the white races.

The task before us is now to determine, as exactly as possible, these conjectural influences from various sources, and to define their nature and range; also, if possible, to find out from what districts the Choroti and Ashluslay originally started for the tracts they now inhabit.

To this end I have adopted the method of marking on the map of S. America the geographical distribution of a great number of cultural elements characteristic of the Choroti and Ashluslay, i. e. I have marked on the map, as exactly as possible, the distribution of each cultural element throughout the S. American continent

I have therefore attempted to draw up maps of the weapons, ornaments, articles of clothing, household utensils, and so on, characteristic of the Choroti and Ashluslay Indians in South America.

I have likewise tried to sketch maps of the distribution of various examples of technical skill exemplified by these Indians For this purpose I have turned to literary studies, besides utilizing the extensive collections that I made during my travels in S. America.

Thus, for instance, in determining the distribution of a cultural element, I have first mentioned its occurrence among the Indian tribes visited by me personally. These are, in addition to the Ashluslay and the Choroti, the Atsahuaca (in the border-land of Peru and Bolivia), Aymara, Baure, Canichana and Cayubaba (in N. E. Bolivia), Cavino (on the Rio Beni), Chacobo (in N.E. Bolivia), Cháma (on the R. Madidi, a tributary of the R. Beni), Chané (on the R. Itiyuro in North Argentina, and the Rio Parapiti in Bolivia) Chimane (on the R. Maniqui, a tributary of the R. Mamoré), Chiriguano, Churápa (near Sa. Cruz de la Sierra), Guarayú (Guarayos, Bolivia), Guarayú-Pauserna, Huanyam and Huari (near the R. Guaporé), Itonama (in N.E. Bolivia) Mataco (in the Gran Chaco), Mosetene (on the R. Beni),

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Tambopata-Guarayo (on the R. Tambopata in Peru) Tapiete and Toba (in the Gran Chaco), Tsirakua (in the Chaco Boreal), Yamiaca (on the R. Inambari in Peru), and Yuracáre (on the R. Chapáre and the R. Sécure in Bolivia).

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I have moreover gone through the literature dealing with the Indians of South America, as far as it was accessible to me. In the case of a few cultural elements I could follow in part the statements of FRIEDERICI, PATER SCHMIDT RIVET and others.

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Unfortunately, with regard to extensive tracts, there are but sparse statements about the material culture of the Indians, indeed, about any aspect of the civilization of the Indians. Such tracts as are little known are those round the R. Ucayali and the R. Tapajos. An ideal work for those who would essay comparative investigations similar to the one here attempted, is KRAUSE'S about the tribes on the R. Araguaya. One will find there everything one looks for about the tract examined. Of rarely quoted works that I have made use of here, the one by SÁNCHEZ LABRADOR on the Chaná and Mbayá is perhaps the most important.

Of unpublished museum material I have drawn chiefly upon what the Swedish museum had to offer. A great number of valuable particulars have been communicated to me by friends and colleagues, among whom I am indebted to Dr. G. Antze of Hamburg, Mr. Kai Birket-Smith of the National Museum, Copenhagen, (M.C.), Dr. W. Foy, Director of the Rautenstrauch-Joest Museum, Cologne (M. f. V. C.), Dr Franz Heger, Director of the Ethnological Museum, Vienna (M.f.V.W.), Dr. Th. Koch-Grünberg, Director of the Ethnological Museum, Stuttgart (M.f.V.S.), Dr F. Krause, Ethnological Museum, Leipzig (M.f.V.L.), Dr J. P. B. de Josselin de Jong, Royal Ethnographical Museum, Leiden, Prof. Dr L. Scherman, Ethnological Museum, Munich (M.f.V.M.), Dr. Max Schmidt, Berlin, Prof. Dr. E. Seler, Ethnological Museum, Berlin, (M.f. V.B.) Prof. Dr. Karl v.d. Steinen, Berlin, and Dr. G. Thilenius, Director of the Ethnological Museum, Hamburg, (M. f. V. H.).

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For several reasons I have confined myself to an investigation of the material culture of the Choroti and Ashluslay Indians. Maps elucidating the geographic distribution of certain conceptions and social circumstances can of course also be put together. Unfortunately, however, it has proved that in such a task one is continually brought up against the difficulty that primary facts are lacking for vast regions. A C 121

I might have taken another tribe than the Choroti and the Ashluslay, and have attempted an analysis of their civilization in the same way. That I should have chosen these particular tribes is due to my possessing a very complete collection of their things, and to these tribes being fairly untouched by the civilization of the white races. In addition to this, I have been greatly interested in the influence of the culture of the mountainous region of the Chaco. In reality, the maps and particulars here given also afford much information about other tribes than those dealt with in the first instance, and I therefore hope that the present work will be of some use to scholars whose researches deal with other parts of S. America.

A few years ago I published a book of travels[1]) in which I gave a fairly full account of the civilization of the Choroti and the Ashluslay. It will therefore be sufficient in the present work to refer to the data necessary for the tables and maps, i. e. the data calculated to throw light upon the geographical distribution and the origin of the different cultural elements. A C 128

Wherever I have come across a reliable authority on, let us say, a certain kind of weapons in the kingdom of the Incas at the time of the Discovery, I have assumed that it

[1]) »Indianlif», Stockholm, 1910. There is a Translation into German under the title of »Indianerleben», Leipzig 1912. There is also a French edition, which is unfortunately very faultily translated, and against which I must warn readers. There are some errors, too, in the German translation. A C [114]

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occurred throughout that kingdom. Though perhaps not always true, this holds good as a rule, since the kingdom of the Incas appears to have been a well organized country with good connexions between the different parts of it. CIEZA DE LEON[1]) says that in most of the Inca provinces the natives imitated one another so closely that in many respects they could be described as a homogeneous people.

Anyone acquainted with the published works on S. America will understand that it called for very much work to draw up the maps here reproduced. I was unfortunately unable to utilize several important old works[2]) as they are not to be found in the Swedish libraries. The bulk of the books from which I have quoted is, however, considerable. Where I had access to some really good works in one domain, I considered I could spare myself the trouble of hunting for other works in that domain. In other domains where no detailed ethnological works have yet been published, I have tried to get all that is attainable. For places which I have visited myself, I have preferred to rely on my own observations, for which reason the works here referred to about the Indians in the Chaco are not specially numerous.

To judge from the maps it would appear as if the cultural elements often had a patchy distribution, even in parts where external assumptions would point to their being universally present. This may be due to the fact that within considerable tracts of S. America the Indians are still little known, and still more frequently to their having died out or become civilized before being made the object of

[1]) (1), p. 260.

[2]) The language has of course not stood in the way of my making use of a work. It is simply absurd for foreign students to state they have been unable to make use of a learned work because it was written in Swedish. It is one's duty, if one is not acquainted with the language, to employ an interpreter in reading the book. To ignore works as certain English writers are wont to do, merely because they are written in another language than their own, or because they are written in Spanish, Portuguese and French when dealing with S. America, is chiefly their own loss.

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detailed study. It may also be owing to the age of the cultural elements dealt with, for they are now only preserved by a small number of tribes, and if we are certain that a cultural element has a sporadic distribution over a whole continent, we can as a rule conclude that it is of great age. We must remind ourselves in this connexion that in most of the older writings there is unfortunately no reference to the material culture of the Indians, save as regards their weapons, dress and knick-knacks.

The maps are of course incomplete, since they indicate *distribution*. How difficult it is to make such maps complete, is easily seen from the circumstance that I have been able to supplement to some extent the monographs written about the distribution of various cultural elements in S. America, with the single exception of Foy's on the twine cross, and to this I have myself contributed some matter. However, I venture to opine that the maps are not so incomplete that the whole result of my investigation is thereby prejudiced, especially as I have been careful not to draw up any map of cultural elements, or to draw conclusions with regard to them, where their distribution was insufficiently known to me.

It is scarcely probable that any pre Columbian cultural element here dealt with should have reached S. America by more than one route, i. e., via Central America was well as via the West Indies. But this is a problem I will not touch on in the present work; nor have I touched on the difficult question whether cultural elements reached S. America in pre-Columbian times directly from the Old World.

It may be asked, to what extent an inconsiderable number of faulty particulars can disturb the whole result of an examination of the kind carried out here. Such faulty particulars of course occur in the very unequal and dissimilar works consulted for such a book as this. Yet I do not think they are many. It is improbable, for instance, that an author should assert that the sling was used by a

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tribe when this was not the case. In dealing with primary observations of material culture, these are too easily observed to admit of mistakes. Matters are otherwise in dealing with ideas and conceptions. Here misunderstandings may easily arise. There is also a danger in quoting from translations, as the translator may often make serious mistakes.[1])

Incompleteness of evidence is difficult to avoid, and I am sure other writers on America will have this or that to add to the maps[2]). *It is, however, one thing to add to a map, and another thing to made additions of such importance that they upset the results at which I have arrived.*

As regards the distribution of a great number of cultural elements, I have restricted myself to stating what I have myself observed on my travels. This applies chiefly to such elements about which I have come to the conclusion that I could not draw up a map showing their distribution throughout the S. American continent.

On the maps each tribe has as a rule a number or a lettered number. Thus, the Choroti are everywhere marked 1, the Ashluslay 2, etc. The tribes on the upper Xingú, the Bakaïrí, Mehinakú, Nuhuquá, etc. who possess a very congenerous civilization, has been given number 28, in common, in order to economise space, likewise the tribes round Roraima, 47, the tribes studied by KOCH-GRÜNBERG about N. W. Brazil, 48, and those visited by WHIFFEN in an adjoining district, 61. I have indicated in the text which tribes are included under these several numbers.

The localities whence the archaeological material derives, are marked with the letters A to O and a to z. A

[1]) Even the translations of the Hakluyt Society, as PRIESTLEY (2) (p. 288) has rightly observed, may be unreliable. This holds good for instance, of the translation of GARCILASSO DE LA VEGA.

[2]) For this reason I have left a few blank pages at the end of the book for the reader to make notes on, and shall be very thankful to receive such notes with permission to make use of them.

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letter may however stand for a whole row of localities within the same district. This, too, has been done to economize space. The necessary details will be found in the text.

On the maps where the cultural element has probably reached the Choroti and Ashluslay from the civilized parts in the west, I have marked the frontier of the Inca kingdom.

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II.

The Migrations of the Cultural Elements.

121 We must bear in mind that, in trying to draw conclusions from the geographical distribution of a cultural element, it is necessary to take account of where it may occur on the basis of natural conditions, the external assumptions for its use being present. There are of course a number of things in the culture of a people which are suited to the circumstances in which that people lives[1].) If, for instance we take a cultural element such as the sling, its distribution is restricted by the circumstance that this weapon can only be used in open ground. On the other hand, the knuckle-duster is an element which is independent of external circumstances: it can be used just as well by forest folk as by people in the plains, in the tropics as well as in cold places. Games of chance, again, are quite independent of the external conditions in which a race lives. Cards can be played equally well on the equator as in the polar circle. The same, to take a further example, is true of tattooing.

These cultural elements, which are independent of natural phenomena, generally consist of such as are comparatively or entirely unessential in the struggle for existence. Natural phenomena having set no impediment to their spread, they afford us excellent clues in the study of the migrations of peoples and civilizations.

[1]) We almost entirely miss this consideration in PATER SCHMIDT'S work, »Kulturkreise und Kulturschichten in Südamerika«.

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When a people moves from one district to another, it retains as a rule most of its old culture. If the new district offers other essential conditions than the old, a considerable part of the culture of the people must naturally undergo a change. Thus, in 1909 I came across a couple of Guarayú Indians on the Rio Parapati. They had long portable baskets, woven out of paripinnate palm-leaves. As we entered the Parapiti territory the baskets became worn out, but as there were no paripinnate palms in this part, they could not make new ones. If, for any reason, the Guarayú tribe were forced to migrate from their present region to the Parapiti region, they would have to change the type of their portable baskets. Similarly they would not be able to make their bows and arrows from the same material as now; and so on. Actually their material culture would undergo quite a number of changes. Every considerable shifting in the territorial spread of a tribe must have been accompanied by changes in its material culture. Should, for instance, the Indians in the Chaco be forced by circumstances to migrate to more northerly parts, to more exuberant primeval forests, as the rainy woods east of Sta. Cruz de la Sierra,[1]) their material culture would certainly assume a very different appearance. Sheep-breeding would then be impossible, clothes and ornaments of wool or pelt would disappear; the Caraguatá industry, which plays such a great part in the Chaco, would be impossible; baskets would probably have to take the place of pouches; and the dwellings would certainly take on another appearance. All this is, of course, a physical necessity.

It is not, however, probable that an Indian tribe would willingly migrate to another district which should offer it quite strange natural resources. When the Incas or Quichuas extended their rule from Quito to the north of Argen-

[1]) A shifting of this kind has taken place recently, some Tsirakua Indians from the Chaco Boreal having taken refuge in the primeval woods east of Sa. Cruz de la Sierra.

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121 tina, they came to districts where they could live in about the same circumstances as at home. They also had settlements, however, at no great distance off, in the primeval woods near their own capital. They established themselves in the primeval forest valleys on the eastern slopes of the Andes, chiefly on account of the cultivation of coca, but they did not give up their permanent abodes in the mountains. They only visited the settlements in the primeval forests for sowing and gathering the harvest. In North Argentina, as in the mountainous districts of Ecuador, they found about the same essential conditions as in the neighbourhood of Cuzco. Had they penetrated into the primeval woods some fifty miles east of Cuzco, and settled there, they would have had to adapt themselves to entirely new conditions.

Of course a race clings to its old culture, and there is also much, of course, in the material culture of a race which need not fear a change because the race has been brought under other climatic conditions, has moved from a plain to the hills, from rainy woods to dry districts, and the like.

At times one can probably work out where a race has come from, because it has preserved some cultural elements from the old domain which are now of no practical use to it. Thus, when some of the Indians in the Chaco wear fur cloaks, this is probably due to conservatism: they wear a garment to which they had been accustomed in the colder climate of further south.

It is certain that the material culture of a tribe more easily undergoes important changes when it moves from one district into another with different climatic conditions than when it remains under the same external essential conditions. The changed conditions force the tribe to adapt itself to the new circumstances. If, in the new district the tribe comes in friendly contact with people who have adapted themselves to the local conditions, and who for generations have gathered experiences, it is natural that it should

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learn a great deal from them. Its material culture will then show a mixture of the old culture and the culture it meets with in the tribe of the new district.

Tribes of very different origin, which live together with an interchange of culture under the same natural conditions; generally get a homogeneous culture. Of such a nature, for instance, is that of the Pano and Tacana tribes in the border country of Peru and Bolivia. So also with the various tribes in the Chaco. On the upper Rio Xingú live the Carib, Arawak and Guarani tribes. They all have a similar civilization. The Chiriguano (Guarani) who have moved to their present locality, have now almost the same material culture as the Chané (Arawaks), who have been there a good while. On the other hand, their culture is very different from that of the Guarayú Indians, who migrated at about the same time as the Chiriguano, or early in the 16th century, from the neighbourhood of the Rio Paraguay, and who probably then possessed a culture similar to theirs.[1])

The neighbours of the Chiriguano towards the Chaco are the Guarani-fied Tapiete. These Indians, who are presumably more closely related to the Mataco group than to the Chiriguano, have adopted the language of the latter, but the bulk of their culture from the former[2]). This proves the posibility of two tribes with very dissimilar culture living together in friendly intercourse, without their culture assimilating.

The culture of a people can of course change, although the external essential conditions remain the same. But these changes take place very slowly under such circumstances, unless the tribe is exposed to influences from without, i. e. from other tribes. If it is a large tribe, the culture presumably changes quicker than if it is a small one. New ideas naturally arise more easily among a few hundred thousand

[1]) Nordenskiöld (13).
[2]) Nordenskiöld (7).

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121 individuals than among small tribes of a few thousand or a few hundred members.

A great part can undoubtedly be played in the development of the culture of a tribe by rape, the women that have been raped being taken up in the tribe and exercising the same handicraft as before. When a great number of raped women of a highly developed tribe are taken up by a tribe of lower standing, their cultural influence is bound to be very great. It may be assumed that even in their new surroundings they cling to their old technical methods of weaving, making pottery, etc.

The rape of women is, and was, common above all other things among Indian tribes. The little tribes of the Atsahuaca and Tambopata-Guarayo, for instance, in the border country of Peru and Bolivia, still carry off each other's women. We know that, when the Chiriguano conquered their present locality, they abducted great numbers of women from tribes living there and in the vicinity. If we study the cultural influences that a tribe has received from a certain source, we must examine whether it is industries that are specially practised by women which produce this influence. In that case there is reason to conclude that the cultural influences have been brought about by abduction.

With regard to most of the cultural elements that the Indians have received from the white men, their origin is easily comprehensible. Thus, that all that has to do with the employant of horses, comes from the white races, goes without saying. On the other hand, with regard to certain cultural elements it is at times very hard to decide whether they are originally American or not. This is true of such a thing as the needle with an eye. Such needles were found in western America in pre-Columbian times, and from there they probably reached the Chaco. Yet the Indians of the Chaco may have learnt the use of the needle from the white men. Sewing-needles were already at an early time a favourite and oft-employed article of barter.

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We must bear in mind that a race with a lower civilization is apt to imitate a more highly developed, or, let us say, a richer race, in clothes, adornments, etc. A tribe does not condescend to wear the adornments of more backward and poorer neighbouring tribes, but readily wears the ornaments and clothes of races more advanced and richer than themselves. Thus, the Chiriguano[1]) are fond of dressing like the white men, and the women bore their ear-lobes to be able to wear the earrings used by the white people. In this tribe it is characteristically the women of the younger generation, who have been more influenced by the white people that have bored ear-lobes, while the older women never wear ear-drops. On the other hand, the Chiriguano would never think of imitating the less civilized tribes in the Chaco. |2|

In the same way presumably, the Indian tribes east of the Andes have imitated the Incas, or Indians on a like cultural level, with whom they have come in contact.

Throughout the Chaco it is in the first place the chieftains and the interpreters that dress like the whites. This is regarded as being smart. SÁNCHEZ LABRADOR[2]) relates characteristically of the Mbayá on the Rio Paraguay, that the chieftains and the medicine-men, but not the other Indians, wore shirts reaching to the feet, a garb that was universal in the Inca Kingdom. It was smart to be dressed like the more advanced Indians, for which reason they copied them and spread the new fashions. Sepp[3]) relates that among the Yaro (Chaná) on the lower Rio Uruguay the chieftains slept in hammocks, the others on skins spread on the ground. This, too, was certainly at the outset a matter of fashion.

A more cultured race exerts a certain attraction upon a lower one, as long as the latter is not exposed to interference from the former. The Tapiete (one of the minor

[1]) Nino, p. 108.
[2]) Vol. I. p. 284.
[3]) P. 51.

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Chaco tribes) even apply for work to the more highly developed, fully domiciled Chiriguano, as at whiles the Mataco Indians apply to the Chané. The Incas and the tribes of N. Argentina belonging to the Bronze Age civilization, most certainly exercised a similar influence on the less civilized tribes with whom they had friendly relations.

For purposes of trade a higher tribe may of course visit a lower one. This can still be seen in the Chaco, where the Chané visit the Toba to exchange things for their dried fish. On such expeditions they are always amiable, we may suppose, and an exchange of commodities of this kind is very important for the spread of ideas.

When a cultural element has such a distribution that it occurs among a higher tribe and neighbouring lower tribes, and is otherwise lacking in extensive tracts I have assumed that as a rule it has reached the lower tribe from the higher. Thus, for example, if a cultural element occurs in the old cultural territory of the west of S. America, and is now found among a lower tribe in a territory adjoining that, we can assume in most cases that it came originally from the cultural part.

In the following pages, in speaking of the maps, I shall quote numerous examples of cultural elements with a distribution of that kind. Many of them occur only in the Chaco and within the cultural zone in western S. America. All the cultural elements with a distribution of this kind must have had a common origin, which cannot very well have been the Chaco, but must have been the cultural western zone.

What is true of the Bronze Age culture in relation to such tribes as the Choroti and Ashluslay, may be held to be true in general of the Guaraní and Arawak tribes in relation to the first-named. It is the Choroti and Ashluslay that have borrowed some cultural elements from the more civilized Guaraní and Arawak tribes, and not vice versa.

It has proved there that a great number of cultural

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elements have a westernly distribution, and evidently reached the Choroti and Ashluslay from the Bronze Age civilization in the west; a smaller number of cultural elements show a distribution which points to their having come from the north and east; others have a pronouncedly southern distribution; while others, again, only occur in the Chaco. 121

In the case of some cultural elements it has been impossible to draw up satisfactory maps, as they have been neglected by most investigators; some have such a distribution that it is impossible to decide from where the Choroti and Ashluslay got them.

Occasionally the higher races in the west seem to have taken over cultural elements from the tribes east of the Andes, but this does not seem to have been the general rule.

It is, of course, often difficult to decide whether a cultural element reached the lower tribes from the civilization of the mountains or whether it derived from a primitive civilization common to the mountains and to these tribes. We must attempt to decide this in each special case from the nature and distribution of the element. If, for instance, the Kelim technical skill, which is so characteristic of the cultural district in the west, occurs in the Chaco, but not in any other part of S. America east of the Andes, we have reason to assume that this cultural element is a loan made by the Chaco Indians from the mountain civilization. The same is true, for example, also of such cultural elements as shirts, certain curious whistles, etc. A cultural element such as the carrying net, for instance, which is characteristic of western S. America, but also occurs in the Chaco and among certain undeveloped tribes in Brazil, did not, probably, spread from the mountains to the tribes east of the Andes, but dates from a very old period and a common primitive civilization.

In the following I will speak first of the material culture of the Chaco tribes here dealt with, and state the ev-

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[2] idence which I have collected about the distribution of each several cultural element, and which forms, so to speak, the verification of the maps. I will then tabulate the cultural elements which seem to have a common origin.

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III.

Dwelling-places.

The Chaco Indians here dealt with, the Choroti and the Ashluslay, live in round or longish, low, brush-wood huts, built of branches planted in the ground and covered with grass or twigs. The entrance is quite narrow and occasionally built out with a passage or porch as a shelter from the wind. This type of hut is well known from many books of travels describing the Chaco.[1] Besides these huts, one can see among these Indians four-cornered cooking-sheds[2], and among the Ashluslay some huts of a similar kind, which are used at carousals and to lodge strangers (men's houses).

The Chaco hut makes a proverty-stricken show, and one is astonished that tribes which can produce among other things, beautifully ornamented textile fabrics and very pretty knitted work, should not have hit upon the idea of building better huts; even when these Indians work for the season in the Argentine sugar factories, they erect these primitive huts.

This type of hut has a very wide-spread distribution in the Chaco. Besides among the tribes mentioned, we find the same among the Mataco, the Tapiete and a few of the Toba Indians. HUNT[3] says characteristically of the huts of the

[1]) See, e. g. v. ROSEN (1) Pl. 11, fig. 2, and NORDENSKIÖLD (8 B.), fig. 2 and Pl. 3.

[2]) NORDENSKIÖLD (8B), fig. 6.

[3]) p. 173.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6

Choroti Indians that they are well made, for he was accustomed to see still more primitive huts among the Lengua Indians, huts consisting of a couple of rush-mats fastened on poles. The Lengua take these mats with them when they move from one place to another. The Toba[1]) on the lower R. Pilcomayo have similar tents, and the Mbayá[2]) formerly had similar dwelling-places, as had the the Abipone[3]). The Chaná[4]) had houses very like those of the Choroti and Ashluslay Indians, though much larger and roomier. The Chiriguano and the Chané now have very roomy, four-cornered huts with ridges to the roofs. But this type of hut is not the original type; it certainly arose under the influence of the whites. In the 16th century the Chiriguano had huge huts in the shape of halls, more than 100 persons living in each hut, a few huts constituting a village.[5])

Outside the Chaco I have seen huts like those of the Choroti and Ashluslay only among the Chána and the Tambopata-Guarayo but built of quite different material. The Yaghan and the Alikuluf in the extreme south of S. America have huts of the same structure as those of the Chaco Indians. We may assume that the Choroti and Ashluslay type of hut is a very old cultural element in America with a predominantly southern distribution at the present time. It is of interest that it is now used only around the upper R. Pilcomayo and the upper R. Bermejo, and chiefly by Indians belonging to the Mataco group, whereas the Toba, Mbayá, Abipone and Lengua tribes have, or had, portable huts, probably allied to the skin-tents of the Patagonians. I also deem it probable that the round or longish brushwood hut represents a

[1]) Ducci, p. 6.

[2]) Sánchez Labrador, Vol. I, p. 208.

[3]) Dobrizhoffer, Vol. 2, p. 119.

[4]) Sánchez Labrador Vol. 2, p. 275.

[5]) Annua de la Compañía de Jesús, Tucuman y Perú, 1596. Relaciones geográficas de Indias, Vol. 2, p. CIV: »cada casa, que es como iglesia de una nave grande.«

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti
Ashluslay SK5

more original, older type of hut in the Chaco that the portable tent.

The protecting porches are, as far as I know, not used by any other Indians in S. America than those here mentioned (the Choroti, Ashluslay and Mataco.)

Cooking-sheds of the type seen in the Chaco, I have not come across among any other Indian tribe visited by me.

In a few of the Ashluslay villages, several huts of the same construction as the cooking-sheds had been joined together to form an irregular building which served as a meeting-place for the men, and was also used as a guest-house. Elsewhere a large tree serves the same purpose. The custom of having a special building in which the men assemble, especially at drinking-bouts, is widely extended in S. America. On my journeys, however, save among the Ashluslay, I have only found this kind of men's house among the Chacobo Indians in N.E. Bolivia.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

IV.

The Bed.

The Choroti and the Ashluslay have no hammocks or plank beds (c a t r e). They sleep on the ground, on skins, or simply on the cloak they use as a garment. Hammocks are used by the neighbouring Chané and Chiriguano, as well as by the Guaná in the Chaco Boreal.[1]) But these are not practical for the Chaco Indians here dealt with, as they cannot sling them in their small, narrow huts[2]). Besides, it is too cold during part of the year in the Chaco to sleep in hammocks, for which reason the Chané and the Chiriguano seldom use them as beds, but chiefly for resting in during the daytime. That hammocks are not used in the hills, is probably also due to the climate, and not to unacquaintedness with these comfortable couches. The Ashluslay occasionally have mats of rushes, on which they sit or lie. I do not know where they derive from. I have not seen mats of exactly the same kind except among the Chané. SÁNCHEZ LABRADOR mentions them as used by the Chaná[3]) and Mbayá (= Kadiuéo)[4]) and MAX SCHMIDT by the

[1]) COMBERS, p. 230.

[2]) For the same reason the Chamá, too, have no hammocks. Among the Mataco-Vejos I saw a hammock which was used as a bed for young dogs to protect them from sand-fleas. The Tapiete have no hammocks but I saw a toy hammock among them (R. M. L. 32) These two tribes are therefore acquainted with hammocks, though the necessity for the manufacture of them does not exist.

[3]) Vol. 2, p. 276.

[4]) Vol. 1, p. 248.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

Guató.[1]) We find skin mats among the Toba, Tapiete, Mataco, Chané, Chiriguano, Yaro-Chaná,[2]) some Guarani tribes in Paraguay[3]) Charrúa,[4]) Caingang in Rio Grande do Sul[5]) Angaité[6]) Payaguá[7]) Guató[8]) Araucanians[9]) Patagonians[10]), and Fuegians.[11]) JACINTO DE CARVAJAL speaks of them among the Indians on the R. Apure[12]) in Columbia, and it is to be presumed that skins are also used by some other Indian tribes for lying on. In a Mosetene fairy-tale that I noted down in Covendo, the jaguar is spoken of as having skin mats in his hut. The narrator evidently wished to emphasise how poorly the jaguar's hut was furnished. The Mosetene themselves have mats woven out of palm-leaves.

I have counted the skin mats among the southerly cultural elements, although skins are also used in isolated cases as mats in other parts.

Seats, which are so widely used throughout the north of S. America, are not used by the Choroti and the Ashluslay.

A C 352

[1]) (3) p. 231.
[2]) SEPP p. 51.
[3]) Ibid. p. 51.
[4]) AZARA (1) Vol. 2 p. 12.
[5]) TESCHAUER p. 23.
[6]) COMINGES p. 122.
[7]) AZARA (2) p. 361, 10 (3) p. 179.
[8]) MAX SCHMIDT (4), p. 179.
[9]) MEDINA p. 173.
[10]) OUTES (3) p. 257.
[11]) GALLARDO
[12]) p. 204.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

V.

Cultivated Plants and Agricultural Tools.

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The Choroti grow small quantities of Indian corn, manioc, zapallo[1]) water-melon, tobacco, cotton, beans,[2]) calabashes, and sweet potatoes. The tilling of the Ashluslay Indians is more considerable than that of the Choroti. Thus, I have seen among them large manioc plantations. The water-melon, which did not exist in America at the time of the Discovery, reached the Choroti and Ashluslay from the whites. The Choroti call it «santia», from the Spanish «sandía».

A
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Manioc and probably tobacco, too, must have reached the Chaco from the north or the east. Where the Choroti and Ashluslay got the other cultivated plants from, i. e. whether they obtained them from the Bronze Age culture of the west, or not, is a question I do not venture to decide. In all probability they are not very old in the Chaco, for the Choroti and the Ashluslay are but too evidently tribes which are predominantly gatherers of wild fruits and fishermen to have practised agriculture for a long period of time. The peaceful Arawaks must have been largely instrumental in spreading the knowledge of agriculture in the Chaco. AZARA[3]) writes of the Guaraní[4]): «Rozan para sembrar tabaco, algodón, mandioca, batatas. . . de que viven y no de la caza ni pesca.»

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[1]) Cucurbita.
[2]) In several varieties.
[3]) (2) p. 38 f.
[4]) Chané.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

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The agricultural tools of the Choroti and Ashluslay Indians, like those of all the S. American Indians, are very simple. They have sticks and spades, and the Ashluslay have also a kind of club with which they break up clods. Of these tools the stick has a very wide distribution throughout the S. American continent wherever the Indians have any civilization. It is certainly as old in the Chaco as agriculture itself. I cannot therefore say that the Chaco Indians have taken it from anywhere. The spade, on the other hand, is probably a cultural element that reached the Indians of the Chaco from the mountain civilization. This is clearly seen from its geographical distribution. (Map. I). The spade of the Chaco Indians is sometimes made of one piece, the blade being occasionally bound to the handle. Both blade and handle are always of wood, generally of lignum vitae (palo santo).

The spades made in one piece have the shape of a canoe paddle (Fig. 1) with a little handle at the top. The Chiriguano also have a handle to their spades. The spades that have been found in N. Argentina and on the coast of Peru, have as a rule very long blades, like the spades of the Chaco Indians, but no handle. That the Indians of the Chaco should have learnt the use of the spade from the whites, is not probable. Nor is it likelythat, as I have elsewhere assumed, the are copied from paddles[1]).

Fig. 1
Wooden spade.
Ashluslay, R. M.
(A .1816).

[1]) I will return to this point, in consequence of MAX SCHMIDT'S recently publishe l article in Z. f. E. 1918, p. 12. He shows that, besides among the tribes mentioned above, the spade occurs among the Kadiuéo, Bororó,

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6

The spade which was used in pre-Columbian times within the western civilized zone, now occurs, as we have seen, among presentday Indians only in districts abutting on this civilized zone, and I have also mentioned that in this case it is probable that the cultural element in question originally derived from the civilized zone, and not from the little tribes in the frontier tracts.

The geographical distribution of the wooden spade

No. on Map.	*Map I)*
A	Find from the coast of Peru, UHLE (4), p. 357. PUTNAM, Pl. 26, fig. 5.
C	» » Atacama, BOMAN, p. 731; UHLE (5), p. 109.
E	» » La Paya, Argentina, AMBROSETTI (5) Vol. 2, p. 456 with fig.
	» » Kipon, Argentina, DEBENEDETTI (1), fig. 8, 18 and 24.
18	Quichua, Cobo, Vol. 4, p. 190.
10	Araucanians, MEDINA, p. 265; GUEVARA (1), p. 82.
05	Chibcha, RESTREPO, p. 121.
07	Cara, Ecuador, RIVET and VERNEAU (4) p. 16.
8	Lengua, GRUBB, p. 78.
03	Chamá, SÁNHEZ LABRADOR, Vol. 2, p. 201.
04	Chiquitos, BURGOS, p. 42.
4	Chiriguano, DEL CAMPANA (1) Pl. 8.
5	Chané[1]).
7	Toba.
6	Mataco
1	Choroti.
2	Ashluslay.

Chamacoco, Kaingua, Tereno and Tapiete. Some of the spades have quite a small blad.

[1]) When no author's name, and no reference is affixed to the tribal name it indicates that I rely on my own observations and collections. The last-named are kept at the Gothenburg Museum (G. M.) and the Royal Museum (R. M.) in Stockholm.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

Map. I. Distribution of the Wooden Spade.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

A 241 Clubs for breaking up clods are known to me, besides from the Ashluslay, only from the Aymara[1]).

The hoe with a haft bent at an angle, which is so typical of the mountain civilization, was not seen by me in the Chaco, or among the other tribes I visited east of the Andes.

A C 241 For removing the seeds from corn-cobs the Choroti and the Ashluslay use a little tool (Fig. 2) which I have only seen elsewhere among the Chiriguano and the Chané. From books I only know anything similar from the Ijca[2]) in Colombia.

[1]) British Museum. Handbook, p. 289. These have stone heads, while those from the Ashluslay are entirely of wood.

[2]) Bolinder (4), p. 74.

Fig. 2. Tool of wood and leather for removing the seeds from corn-cobs. Choroti. G. M. D. (1318) 1/2.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

VI.

Tools used for collecting Wild Plants.

For bending down the high branches of the carob-tree (algarrobo) and other fruit-bearing trees, the Choroti and the Ashluslay use a long wooden hook. For digging out the prickly Caraguatá plant, they use a kind of long wooden fork (see «Indianerleben», fig. 49). The implement reproduced in Fig. 3 serves to tear up high grass. None of these implements have been observed, as far as I know, outside the Chaco. I have therefore counted them among the typical cultural elements of the Chaco Indians.

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Fig. 3. Tool of wood used for tearing up high grass. Choroti. G. M. (D. IIII). 1/10.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

VII.

Hunting Weapons and Equipment.

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The Choroti are not eager huntsmen. The Ashluslay propably hunt more. Their only real hunting weapon is the bow and arrow. They also have snares of various sorts, though I do not know if they use them much. The sling and the bolas also occur among these Indians, but only as boys' weapons.

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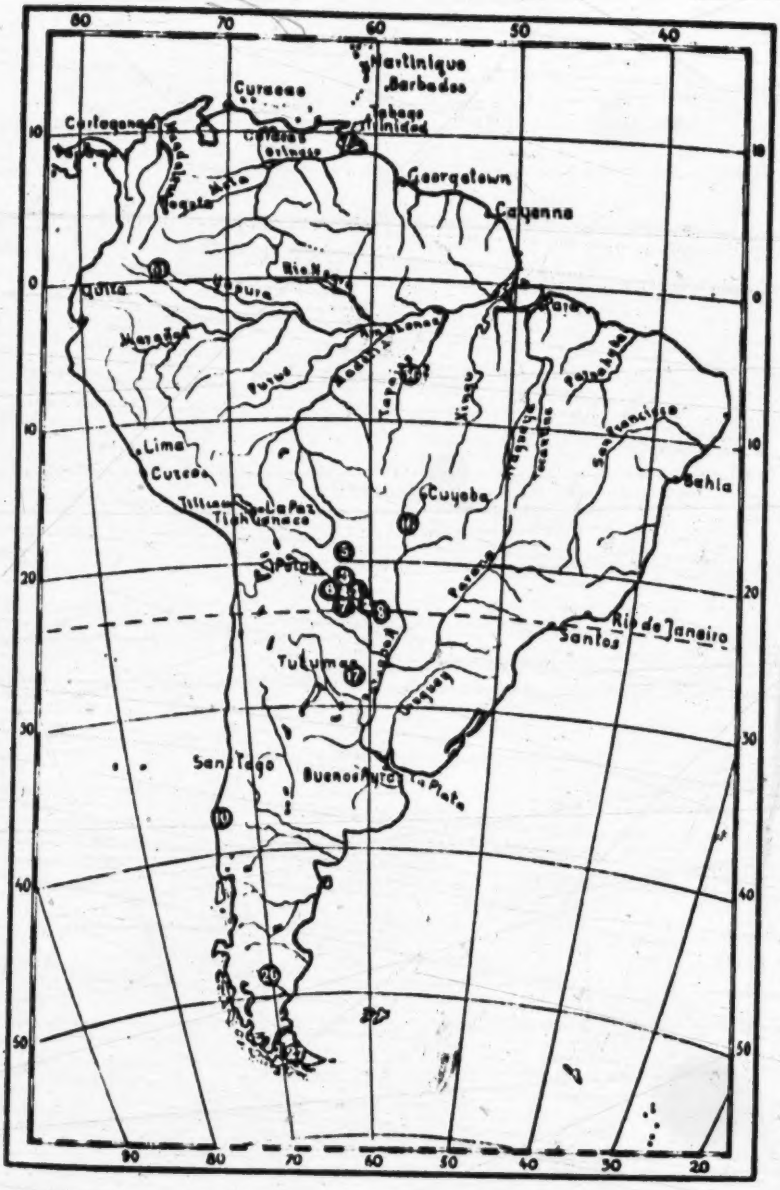
The *bow and arrow* are certainly very old cultural elements throughout S. America. We find them almost all over the continent and among all the really primitive peoples. As far as I know, this weapon is only wanting on the Upper Amazon, or at least was rare there, for in the oldest books of travels[1]) from these parts we are told that on the upper part of this river the Indians fought with spears which they flung with the throwing stick, whereas lower down the river they used the bow and arrow. In the mountainous regions and on the Peruvian coast, i. e. in the greater part of the cultural zone in the West, the bow and arrow was also a rare weapon[2]). One may really ask why the Indians there preferred to use the throwing stick rather than the bow, which latter was nowhere unknown to them. VEIGL gives us a good explanation[3]): «The throwing stick carries as far as a bow, and is much more convenient for them, as they can

[1]) See GASPAR DE CARVAJAL and ACUÑA.
[2]) But was not unknown there.
[3]) P. 256.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6



Map. 2. The Distribution of the Bow-strings of animal material.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

make the throw with the right hand alone, leaving the left free to steer or direct the boat.»

In the mountainous districts and on the Peruvian coast it was in part no doubt the lack of wood suitable for making bows that made this a rare weapon, but also in part the advantage of having the left hand free while using the throwing stick.

The bow (Fig. 4) that is used by the Indians dealt with here, is very poor in comparison with the bows used by most of the Indians inhabiting N.E. Bolivia. The transverse section shows a very varying form. The two ends of the bow are sharpened to a point, and are not provided with notches to hold the string. Bows of this sort, without notches, seem to belong to a very old cultural phase in S. America, for we only find them in the extreme south, and among a small number of very primitive peoples in Bolivia and Brazil.

PATER SCHMIDT mentions the following tribes that have bows ending in a simple point without notches for the string: Botokudo, Bugre, Chamacoco, Sapuki, Mataco, Toba, Angaité, Payaguá, Mbayá (Kadiuéo), Siriono, Pampas Indians, Miraña, Yauaperi and Uašmiri[1])

A few tribes have very indistinct notches at the end of the bow.

To the tribes enumerated by PATER SCHMIDT I can add, on the basis of archaeological material, the Indians in the Puna de Jujuy in Argentina[2]).

The bow-strings of the Choroti and Ashluslay Indians are made partly out of caraguatá fibres, partly out of strips of skin. Bowstrings of animal material are only found among the Indians in southern S. America as far north as the Chaco. (Map 2). In tropical S. America such bow-strings are unpractical and rare. Bow-strings of tendons or strips of skin

[1]) PATER SCHMIDT, p. 1033.

[2]) LEHMANN-NITSCHE (1) Pl. 2, fig. 3; pl. 3, fig. 16.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti
Ashluslay SK5.

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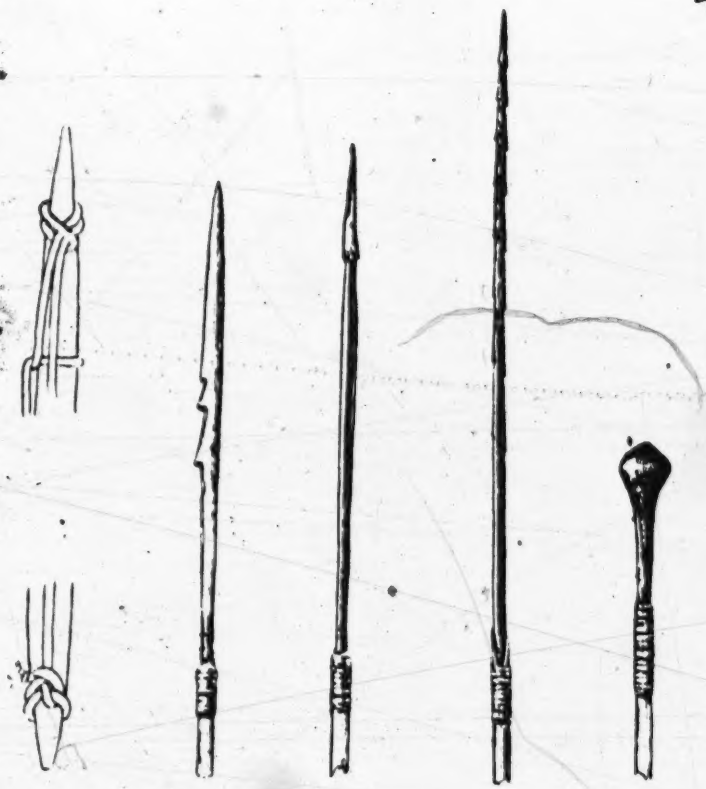

4 5 a 5 b 5 c 5 d

Fig. 4. Bow. Ashluslay. R. M. (A. 1701) 1/4.

Fig. 5 a Arrow point Ashluslay G. M. (C. 428) 1/6
b " " G. M. (C. 417) 1/6
c " " G. M. (C. 429) 1/6
d " " G. M. (C. 423) 1/6

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

are, or were, used by the (27) Ona [1]), (5) Chané [7]) (2) Ashluslay [7]), (1) Choroti [7]), (6) Mataco [7]), (7) Toba [7]), (3) Tapiete, (10) Araucanians [2]), (26) Patagonians [3]), (17) Abipone [4]), (16) Guató [5], [8]) and (8) Lengua [9]).

WHIFFEN mentions bow-strings of strips of skin from (61) tribes on the north bank of the Rio Yapurá [6]). MEYER assumes that a bow with tendon string, which has been preserved since the 17th century in Copenhagen, comes from (56) Mundrucú. I consider it probable that the string which is now on the bow did not originally belong to it [10]).

For the rest, bow-strings of vegetable material are found throughout S. America.

In fig. 5 a, b, c, and d are reproduced the most important of the types of arrow heads to be found among the Choroti and Ashluslay. Of these I have attempted to study the distribution of the arrows with thickened heads (the bird arrow) (fig. 5 d) and would refer to Map. 3 and the subjoined list of references concerning the distribution of these arrow-points. The map pays no regard to the shape of the points among the different tribes.

The Geographical Distribution of the Bird Arrows in S. America (Map. 3)

No. on the map.

45 Botocudo, WIED, Vol. 2, p. 25; v. IHERING (2), Pl. 2, fig. 5; THERESE VON BAYERN (1), Pl. 4, fig. 8.

14 Bororó, STEINEN (3), p. 485.

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1) GALLARDO, and others.
2) MEDINA, p. 134.
3) PIGAFETTA p. 12.
4) DOBRIZHOFFER, Vol. 2, p. 354; »of the entrails of foxes».
5) MAX SCHMIDT (3), p. 186.
6) p. 95.
7) Also of Caraguatá fibre.
8) Also of palm fibre.
9) GRUBB, p. 77.
10) Is it not possible that some little princes played with the bow, and having lost the original string had a new one fitted to it?

Map. 3. Distribution of the «Bird Arrows» in S. America.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6

ꝺꝺ 08 Mosetene.
24 Chimane.
22 Yuracaré.
33 Campa, ORDINAIRE, p. 268.
71 Sipibo or Cashibo, M. f. V. S.
40 Guarayú, Guarayos.
20 Paressi-Kabiši, MAX SCHMIDT (4), p. 201, fig. 49, 7, 8, «The thicker part at the upper end, used for stunning birds, is made of the naturally thick root of the cane.»
5c Nambiquara, ROQUETTE-PINTO (2), p. 184.
15 Kayapó, KRAUSE, p. 392, fig. 249 a.
13 Karajá, EHRENREICH (2), Pl. 4.
50 Šavajé, KRAUSE, p. 360, fig. 195 c.
4 Chiriguano.
21 Cainguá, VOGT, p. 204.
3 Tapiete.
5 Chané.
6 Mataco.
1 Choroti.
2 Ashluslay.
8 Lengua, HAWTREY, p. 295.
11 Chamacoco, BOGGIANI (1), fig. 39.
16 Guató, MAX SCHMIDT (3) p. 188, 191, 194, fig. 50, 61-64.
23 Churápa, toy.
41 Guarayú (Pauserna), NORDENSKIÖLD (11), fig. 139.
55 Kalina, Goeje, (1), p. 43.
55 Galibi, BARRÈRE, p. 168, fig. 2.
31 Trio, GOEJE (2), Pl. 2, fig. 10.
47 Indian tribes, Roraima. G. M.
81 Indians on the Coast of Guayana; Arawaks and Caribs, IM THURN, p. 244, fig. 14.
39 Goajiro, THERESE VON BAYERN (2), Vol. 1, Pl. 3, fig. 8.
36 Ijca, BOLINDER (4), p. 91.
35 Chimila, BOLINDER (4), p. 93.
54 Guahibo, STRADELLI, p. 24.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

7 Toba.
29 Caingáng, AMBROSETTI (1), fig. 5.
30 Guayaqui, KUNIKE pag. 158. (Not on the map.)
17 Abipone, DOBRIZHOFFER, Vol. 2., p. 359.
97 Puri, WIED, engravings and maps to Vol. 1. Pl. 12, fig. 4.
13 Finds from Arica, UHLE (1), Vol. 1, Pl. 25, fig. 24 and 25, JOYCE, Pl. 26,4.

Arrows with thickened heads are almost entirely wanting throughout the N.E. of Bolivia, N.W. Brazil[1]), among the Indians of R. Purús[2]), among the Jivaro[3]), the Ona[4]), and probably the Mojo[5]) Indians.

These arrows, therefore, do not occur in every district where they might have been used with advantage. But it may be asked whether arrows with thickened heads are not somewhat unnecessary among tribes that have blowguns. These arrows are used especially in shooting at birds in trees. If the arrow does not strike the bird, but the trunk of the tree, it does not stick there as a sharp arrow would, but falls down and can be used again. The blowgun, too, is chiefly used in shooting at birds and small mammals that are found in trees. The two seldom occur together among the same tribe. It seems to me impossible to say at present where the bird arrow originated. It is probably a very old cultural element. The most primitive, but not certainly the oldest form of this kind of arrow, is found among the Botocudo, Purí, Kayapó, Paressi-Kabiši, and in parts among the Guató, where the thickened end is made of the root of the cane which constitutes the shaft.

The Ashluslay wrap their left wrists round with a thick cord as a protection against the bow-string. The Choroti, Mataco and Ashluslay sometimes have broad leathern brace-

A C 411

1) KOCH-GRÜNBERG, WHIFFEN.
2) EHRENREICH.
3) RIVET (1).
4) GALLARDO, etc.
5) CASTILLO, p. 318.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

A
C
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Fig. 6. Leather bracelet adorned with tin-plate. Ashluslay, R. M. (A. 1025) 1/3.

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lets (fig. 6), which probably serve the same purpose. *Wristlets* for shooting with the bow have not been observed among many of the S. American Indian tribes. From books I know of them among the Abipone[1]), Botucudo[2]), Crichaná[3]), Goajiro[4]), Guató[5]), Ipurucotó[6]), Karajá[7]), Mbayá[8]), Mundrucú[9]), Chavantes[10]), Chieriabá (on the R. de S. Francisco, E. Brazil[11]), Cainguá (Cayua)[12]) and Ona[13]).

The wristlet is, as far as I can see, a cultural element the distribution of which is too little known for us to venture upon conclusions with regard to its origin.

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[224]

Snares are probably extensively used in S. America, though they have been little studied. On my travels I came across a great number of snares set in very various ways by the Choroti, Chané, Toba, Cavina, Guarayú (Pauserna) and Tumupasa.

I will not attempt here to determine the distribution of the different types of snares. The fact is probably that all, or almost all, the Indian tribes use snares of some sort, though they may have escaped the notice of most travellers. When opportunity offers I will describe and depict, in a sep-

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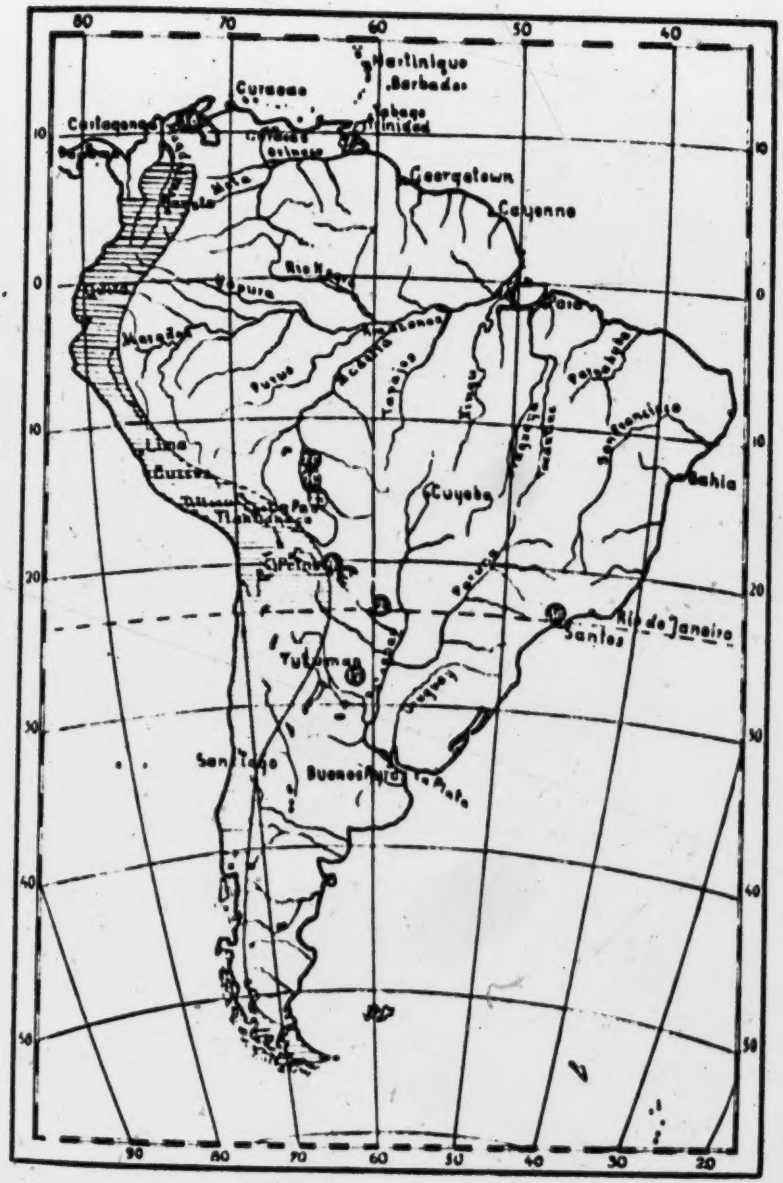
1) Dobrizhoffer, Vol. 2, p. 354
2) Wied, Vol. 2, p. 27
3) Barbosa Rodrigues, p. 161.
4) Therese v. Bayern (1) Vol. 1, Pl. 1, fig. 7.
5) Max Schmidt (3), p. 238.
6) Barbosa Rodrigues, p. 145.
7) Krause, p. 275.
8) Sánchez Labrador, Vol. 1, p. 316.
9) Martius, Vol. 1, p. 388.
10) » » » » 272.
11) » » » » 278.
12) Lopes, p. 320.
13) Gallardo, p. 150.



Map. 4. The Distribution of the Sling.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti
Ashluslay SK5

arate pamphlet, what I have seen in the way of snares and traps; it would be very desirable if other travellers would make a point of photographing and sketching the snares and traps used by different tribes. The primary material published on this head is very inconsiderable when compared with what is undoubtedly obtainable[1]).

The *sling* occurs among the Ashluslay Indians, but only as a toy. In their country there are extensive plains, where the sling would be easy to handle, but there are no stones available, and all that could be used in their place are lumps of clay and fruits. In these circumstances the sling could not serve as an implement of the chase or as a weapon.

FRIEDERICI[2]) gives a resumé of the distribution of the sling in S. America. He gives

Caucatal, Highlands of Bogota, Inca Realm, Araucans, Pehuenche, Yaghan, (38) S.-Tupi and (25) Mojo.

Pater SCHMIDT[3]) also gives all the Fuegian tribes and the (7) Abipone.

To this list I can add, besides the Ashluslay, the (6 c) Canichana, (7 c) Itomana, (3) Tapiete, Chiriguano, (4) Quimbaya[4]) Panches[5]) and (36) Ijca[6]). Of these tribes the Canichana and Itomana probably did not learn to use the sling until post-Columbian times.

The chief area of distribution for the sling in S. America is the old cultural zone in the west. But it must be a very old cultural element, as it has extended to the Fuegian tribes.

The slings of the Ashluslay are cleverly made of a single cord, of which, as can be seen from Fig. 7, both pocket and

[1]) I am probably right in claiming that I have a larger collection of Indian snares from S. America in the Gothenburg Museum than can be shown in any other European museum.

[2]) (2).

[3]) p. 1052.

[4]) SKLER 1), p. 243.

[5]) OVIEDO Y VALDÉS, Vol. 2. p. 367 and p. 392.

[6]) BOLINDER (4), p. 94.

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arms are made. I have not seen similar slings among any other tribe.

The *Bolas*, too, is only found among the Choroti and the Ashluslay as a toy or as a boy's weapon. There are no stones to make the balls, so these are made of wood.[1]) FRIEDERICI[2]) has indicated the distribution of the bolas. He mentions the Aymara, Quichua, Mojo, Mataco, Abipone[3]) and other Chaco Indians, the Araucanians and other allied tribes, the Indians of the Argentine pampas, the Patagonians and some of the Fuegians[4]). To this list may be added the Querandi[5]) at the mouth of the R. La Plata.

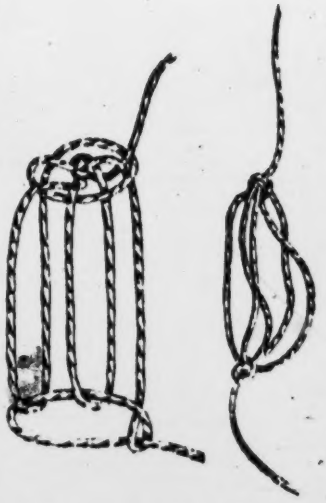

Fig. 7. Ashluslay Sling. R. M. (A. 1555).

Stones similar to those used for the bolas have been found in an extensive region in the west and south of S. America. A good deal that has been written about these stones is passed over by FRIEDERICI in the treatise just referred to; v. IHERING[6]) has written about these stones in S. Brazil. RIVET[7]) who offers us a very complete résumé concerning their distribution, is of the opinion that they were used in different places for different purposes. It must therefore not be assumed that wherever bolas-like stones have been found, the bolas was in use. EDER[8]) mentions the

[1]) See »Indianerleben» fig. 24.
[2]) (1) p. 34.
[3]) Also as a toy. . FRIEDERICI (1), p. 34.
[4]) See also COLAZZI. p. 124.
[5]) SCHMIDEL. p. 150.
[6]) (1), p. 73.
[7]) (4) p. 177.
[8]) p. 209.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6

bolas of the Mojo Indians. It probably reached them at the same time as cattle-breeding, the horse, and the lasso, i. e. in post-Columbian times. According to him, the cords of the bolas were made of ox sinews, and the balls of lead. Stones that could have been used for bolas were not found by me in Mojos during my archaeological excavations. In this very stoneless country, it would have been necessary to import stones for the bolas, if the bolas really was used as a weapon in pre-Columbian times. Bolas with wooden balls may have been used as toys, as they were in the equally stoneless Chaco, but on this point we know nothing.

Knowing the bolas to have been a very old weapon in the Andes and in the pampas, we may assume that most of the bolas-like stones which have been found there, were really used in bolas. From this we can judge that the bolas was used in the old territory of the entire Inca Kingdom, in S. Chile, Patagonia, the pampas of the Argentines, Uruguay, S. Brazil and Mojos, in which last locality it was in use at the time of the mission, but probably not earlier, nor yet now.

With regard to the bolas-like stones mentioned by BARBOSA RODRIGUES[1]) from the lower part of the R. Amazon on the R. Yatapú and from the Sierra Piquiatuba on the R. Tapajos, and with regard to those found in the Antilles (Guadeloupe), there is nothing to be said, as far as I can see, as to whether they were used for bolas or some other purpose.

Apart from the toys to which I have referred, I have found bolas only in the Puna de Jujuy among the Spanish-speaking Indians. The Chiriguano state that they formerly had bolas.

The Bolas presumably belongs to the very old cultural elements that have a marked westerly and southerly distribution. Like the sling, it was used in open country. In the

[1]) Following RIVET and VERNEAU (4), p. 178

Map. 5. Distribution of the Clay-pellet bow.

2: Nordenskiöld E-5 (1908-1909)1919
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ODD woods the bolas is an unserviceable weapon. Toy bolas, like those used by the Choroti and Ashluslay, have not been observed by me among any other tribe. From books I only know of toy bolas from the Patagonians[1]), Araucanians[2]) and among the Incas, as stated by FRIEDRICI[3]) following HUAMAN POMA.

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Fig. 8. Pellet bow. Ashluslay. G. M. (A. 1708) 1/4.

A combination of sling and bow is the *clay-pellet bow* (Fig. 8). I have seen it among the (16) Mataco (Mataco-Vejos), (2) Ashluslay, (1), Choroti, (3) Tapiete, (22) Yuracáre, (4) Chiriguano, (5) Chané (23) Churápa, and (87) Mestizos of Sta. Cruz in Bolivia.

GUSTAF ANTZE has written a treatise on the distribution of the pellet bow in the world. According to him, it is in use in the following districts and among the following tribes of S. America: (87) Brazilian coast, W. of Cabo Frio, (87) Sta. Catarina, (3 c) Machali on the R. Belmonte (21) Caingná (16) Guató, (17) Abipone, (8) Lengua (I), Guarani (Paraguay) (IV) Guaná (11) Chamacoco, (X) 4 Payaguá (II) Tereno (9) Toba, (12) Mbayá (Kadiuéo) (75) Angaité (87) among Portugese boys in Leopoldina, and among the (13) Karajá.

As seen from Map 5, the pellet bow has an easterly and much concentrated distribution in S. America. It also occurs in India and E. Asia. It appears to me improbable that the pellet bow should have been invented independently in Asia and in S. America, and I almost came to the conclusion some time ago that the pellet bow reached the New World from the Old in some manner in pre-Co-

[1]) OTTEN and BIRCH p. 123.
[2]) FRIEDRICI (4), p. 34.
[3]) " "

2: Nordenskiöld E-5 (1908-1909) 1919
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humbian times, together with some other cultural elements with a similar distribution. *A circumstance that also speaks in favour of the Asiatic origin of the pellet bow in S. America, is that strengthening in the middle of the bow (see fig. 9 a), which is to be found in the Asiatic bow, may also be seen in most of the S. American ones.* A similar strengthening is never seen in the S. American arrow-bow, whereas it is quite common in the Asiatic.

I no longer believe in the pre-Columbian transference of the pellet bow from Asia to S. America, but still I con sider it highly probable that the pellet bow reached S. America from Asia — *in post-Columbian times.* It was presumbably brought to the Brazilian coast from India through the agency of the Portuguese. And it is the Indian pellet bows that are most like the S. American ones. Another factor that speaks in favour of the pellet bow having reached S. America in post-Columbian times, is that this undoubtedly curious weapon finds no mention in any book of travels before Dobrizhoffer's (1784), despite the fact that we possess excellent old travel books about the very districts where the pellet bow is now used, as well as about the Brazilian litoral, in which books the weapons, implements, etc. peculiar to the Indians are dealt with[1]). In the Brazilian litoral the pellet bow was

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Fig. 8 b. Rest for pellet bow. Asluslay. G. M. (A. 1436) 1/3.

[1]) The only reference I have found in books of the 16th and 17th century which could be meant for the pellet bow, is the following passage in Gómara, p. 200, touching the Indians of Cumaná in Venezuela: »Aprenden de niños, hombres y mujeres, á tirar al blanco con bodoques de tierra, madera y cera.» But I am inclined to think that the reference is to pellets of earth, wood and wax thrown by hand.

2: Nordenskiöld E-5 (1908-1909)1919
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9 b. 9 a.

Fig. 9 a. Pellet bow from Travancore, India; 9 b. from Brazil. After Antze.

evidently used principally by mestizos and civilized Indians.

Around Sta. Cruz in Bolivia the pellet bow is a favourite toy of mestizo children. KRAUSE[1]) mentions the pellet bow of the Brazilians in Leopoldina on the R. Araguaya, and emphasizes that the Karajá Indians learnt its use from them. He writes:

»Den Kugelbogen (bodóke) habe ich bei den Karajá nicht gesehen. Doch wurde mir bei der Südhorde mitgeteilt, dass sie ihn anzufertigen verständen, und dass die Kinder Steine damit zum Töten kleiner Vögel würfen. Wahrscheinlich haben die Indianer ihn von den Brazilianern übernommen, da Kinder in Leopoldina ihn vielfach als Spielgerät benutzen. Das Fehlen eines einheimischen Wortes für das Instrument lässt wenigstens schliessen, dass auch das Gerät nicht einheimisch ist.«

Both the Choroti and the Ashluslay have a special word for the pellet bow, but then as a rule they have some special word for an article they have got from the whites. The Choroti call the pellet bow »lúsumpä«, the Ashluslay call it

[1]) p. 274.

2: Nordenskiöld E-5 (1908-1909) 1919
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«nok». In all probability neither the Choroti nor the Ashluslay received the pellet bow directly from the whites, but through the agency of some other tribe.

It is also of interest to note, that the distribution of the pellet bow in S. America is quite different from that of all the other cultural elements. This also argues in favour of the pellet bow not being an Indian cultural element in S. America.

In view of the above, I hold it best, for the present, to place the pellet bow among those cultural elements that the Indians of S. America received from the whites. This may seem rather bold, but, as stated above, there is much evidence in favour of this assumption. It proves how important it is to know the post-Columbian history of the cultural elements.

2: Nordenskiöld E-5 (1908-1909)1919
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VIII.

Weapons not used, or seldom used, in the Chase.

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The bow and arrow is the most important weapon used by the Chaco Indians here dealt with in their encounters with other Indians or with white men. I have treated of the bow and arrow above. Particular types of arrows that are only used in encounters with men, are not found, with the exception of the *fire-arrow*. The Mataco, and probably also the Choroti when they attack an Indian village, occasionally employ such arrows. With them they set fire to their adversaries' huts. Similar arrows are mentioned by DOBRIZHOFFER[1]) from the Abipone, STADEN[2]) from the Tupinambá, MARTIUS[3]) from the Chavantes, SCHMIDEL[4]) from the Indians at the estuary of the La Plata, BIET[5]) from Indians that lived near the estuary of the Oyápock in Guayna, DU TERTRE[6]) from the Lesser Antilles, and PIZARRO[7]) from Cuzco. Other weapons, not used, or seldom used in the chase, but principally in contests with men, are clubs, knuckle-dusters, lances and bone daggers.

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The *battle-club* has a characteristic shape among the Choroti and Ashluslay. It is short with, a clearly marked head.

[1]) p. 359.
[2]) Vol. 1 Caput iiij; Vol. 2, Caput xxvij.
[3]) p. 270.
[4]) p. 155.
[5]) p. 210.
[6]) Vol. 2, p. 404.
[7]) p. 200.

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SK6 Choroti SK6
Ashluslay SK5
Mataco SI7

PATER SCHMIDT[1]) mentions such clubs from the Tsirakua[2]) Ashluslay, Choroti, Sanapana, Chamacoco, Pilaga, Payaguá Mataco, Lengua, Mascoi, Guaná, and from the old culture zone in the West.[3]) I may add the Tupinambá[4]) and the Tapiete. PATER SCHMIDT points out[5]) that the occurrence of this type of club in the Chaco points to influences from the mountain culture. Here he is probably right.

It is of great interest to note the distribution of wooden clubs with clearly marked heads, and of clubs with stone heads. In S. Brazil, as in the Andes, we find stone clubheads. In the Chaco they are exclusively of wood, the very natural reason being that there are no stones. The occurrence of stone clubheads in S. Brazil will be the more readily understood on the assumption that the wooden club in the Chaco is a local form of the stone-headed Andes club.

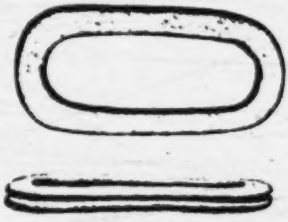

Fig. 10. Knuckle-duster. Mataco. R. M. (03. 3. 074) 1/3.

A rare weapon in S. America, which is found in the Chaco among the (1) Choroti, (6) Mataco, (3) Tapiete and (2) Ashluslay, is the knuckle-duster (Map 5)[6]. It is used there by the women. Most knuckle-dusters in the Chaco are made of wood or Tapir hide. The knuckle-duster depicted above, which is of wood, is from the Mataco (Fig. 10). A drawing of a knuckle-duster of tapir hide from the Ashluslay is given in »Indianerleben».[6]) From the distribution of the knuckle-

[1]) p. 1027.

[2]) Incorrectly quoted from my book, »Indianerleben», SCHMIDT substituting Siriono for Tsirakua. The little missile clubs of the last-named Indians are, moreover, very different from those of the other Chaco Indians. (See »Indianerleben» fig. 140).

[3]) p. 1052.

[4]) LERY, Fig. p. 241.

[5]) p. 1027.

[6]) Fig. 37.

2: Nordenskiöld E-5 (1908-1909)1919
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Ashluslay SK5

duster we may conclude that it is one of the cultural elements that the Chaco Indians have received from the mountain culture. I have in my private collection a beautiful bronze knuckle-duster which, on somewhat uncertain authority, is said to have been found in the district of Lima (A). In the Museum of Ethnology at Berlin there is a wooden knuckle-duster found on the coast of N. Chile (B). LEHMANN-NITSCHE[1]) gives a drawing of an object from an old grave in the Puna de Jujuy (D) which appears to me to be a knuckle-duster of this kind.

Throughout the N.W. Argentine (E) numerous bronze knuckle-dusters have been found[2]). LATCHAM[3]) gives drawings of some from Sta. Maria (z) in N. Chile. BOMAN[4]) also mentions a knuckle-duster, found near Taltal (z) in Chile. The same author gives particulars of a knuckle-duster found at San Juan (F) in the Argentine. This, like those found in Chile, is of bronze. COBO[5]) and ACOSTA[6]) instance knuckle-dusters from the Incas (18), used in certain religious ceremonies.

The distribution of the knuckle-duster is, as we see, very similar to that of the spade, though less extended.

The *bone-dagger*, too, is a rare weapon in S. America. We find it in the Chaco among the Choroti and Ashluslay. Besides this, it is only known from the Bororó[7]), from the district of Chuquimayo in N. Peru[8]) and from the extreme S. of Chile[9]). I have counted the bone dagger among the

[1]) Pl. 3, fig. 38.
[2]) BOMAN, p. 136, LAFONE QUEVEDO (2), p. 285, AMBROSETTI (3), p. 250.
[3]) (2) p. 44, fig. 7—8.
[4]) p. 136.
[5]) Vol. 4, p. 86.
[6]) Lib. V. Cap. IV.
[7]) PRIČ a. RADIN Pl. 30, fig. 13.
[8]) PALOMINO, p. 11.
[9]) MEDINA, p. 138.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

Map. 6. The Distribution of the Knuckle-duster.

2: Nordenskiöld E-5 (1908-1909)1919
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000 cultural elements the distribution of which is not exactly known.

The *lance* likewise belongs to the weapons seldom used in the chase, but chiefly in combat with other men. However, I have seen the Mataco use lances in hunting the peccary. The Ashluslay also have lances, provided, like those A of the Mataco Indians, with iron heads, which the Indians [411 obtain from the whites by barter. Besides among the two 439] tribes here mentioned, I have seen lances among the Toba alone. The lance has, or more correctly had, a very extensive distribution in S. America. It is certainly very difficult to decide which tribes have learnt the use of the lance from the whites[1]) so that I do not venture to express an opinion as to where this cultural element is to be placed. As early a writer as SCHMIDEL[2]) says of the Timbú Indians: »En esta ocasion ellos se habian fabricado lanzas largo con las espadas como se habian aprendido á los Cristianos.»

Neither of the Chaco tribes here dealt with possess A shields. On the other hand, the Ashluslay occasionally have C *body armour* of cow hide and jackets of jaguar hide, which [713] serve as a protection against arrows.[3]) DOBRIZHOFFER mentions similar jackets of tapir and jaguar hide from the Apipone[4]). The Patagonians, too, according to FALKNER[5]) and

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[1]) An exhaustive historical enquiry would be necessary, and this would be difficult, if not impossible, to carry out.

[2]) p. 192.

[3]) »Indianerleben», Pl. 13.

[4]) »The Abipones are unacquainted with shields and target, but they cover the greater part of their bodies with a sort of defence, made of an undressed antas hide, a tiger's skin being sewed either in the in- or outside; it is open in the middle, that the head may come through, and extended on each side as far as the elbows and middle; it is impenetrable to common arrows but not to spears and bullets, though it somewhat diminishes their force. To this coat of mail they added a girth wider than a man's hand, of the dressed hide of the same animal, when they saw their leader Debayalkin wounded in the belly with a spear.» Vol. 2. p. 361.

[5]) p. 112.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

the Araucanians, according to VALDIVIA[1]), used hide armour. The Incas probably had no leather armour, but only armour of other material, such as wadding, and little slats[2]). Nor is any armour mentioned in the earliest descriptions of La Plata and Chaco, so that I do not hold it to be impossible that the leather armour was an imitation in many parts of the armour of the Spaniards. Both leather armour and lance belong to the cultural elements of which at present no use can be made in determining the migration of nations, as their post-Columbian history is unknown.

[1]) p. 52.
[2]) Cobo, Vol. 4, p. 194.

2: Nordenskiöld E-5 (1908-1909)1919
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Ashluslay SK5

IX.

Fishing-tackle.

A C 227 The tackle used by the Choroti and Ashluslay is of two kinds of nets, as well as the bow and arrow[1]) The Ashluslay have also a species of basket which they place over the fish they catch in swamps. As far as I know, catching fish by means of poison is not in vogue. Angling hooks of Indian manufacture I have not come across, and European hooks are not popular as objects of barter among the Choroti and Ashluslay. To net fishing belong clubs, with which the fish are killed, and wooden needles with line of the same material to draw up the captured fish. The *nets*[2]) used by the Choroti and Ashluslay I have seen employed by the Chiriguano, Chané, Toba and Tapiete, but by no other 080 tribes that I got to know on my travels. Nets like the dip net are known to me from books, but only among the Lengua[3]) and from the N.W. of Brazil.[4]) I therefore count the net among the cultural elements with whose distribution I am imperfectly acquainted. Small, short *clubs*, only used in killing fish, were seen by me among the Mataco, the

[1]) In my book »Indianerleben» I wrote that the Choroti and Ashluslay do not employ the bow and arrow for killing fish. This is incorrect, as Mr CARL MONNING informs me. They employ this method of fishing during the latter part of the rainy season, when I was not among these Indians.

[2]) See »Indianerleben» fig. 11 a, Pl. 14 and fig. 73.

[3]) GRUBB, p. 81.

[4]) KOCH-GRÜNBERG (2) Vol. 3, fig. 11.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

Toba and the Tapiete, as well as among the tribes mentioned above. MAX SCHMIDT[1]) mentions these clubs from the Guató. Formerly they were also used by the Mbayá[2]). I have put the club among the cultural elements characteristic of the Chaco. The *wooden needle with the line* for pulling up fish is also specially characteristic of the Chaco. Apart from the tribes here dealt with, I have seen such needles among the Toba, Mataco and Chiriguano. HAWTREY also mentions them from the Lengua.[3]) I have not seen them mentioned in books about any tribe outside the Chaco.

The *baskets* mentioned above are also found, besides among the Ashluslay, among the Lengua[4]) and the Cayubaba[5]). I have seen them myself among the last-named tribe.

I have myself seen *fishing with the bow and arrow* and know it to be practised among the following tribes: Atsahuaca, Chacobo, Cháma, Chimáne, Chiriguano, Churápa, Guarayú (in the Mission), Guarayú (Pauserna) Huanyam, Huari, Mosetene, Tambopata-Guarayo, Vamiaca and Vuraeáre.

This sort of fishing is widely extended in S. America.

The Choroti and Ashluslay have no multi-pointed fishing arrows, and no harpoon arrows.

There is a curious *river damming contrivance* in use among the Choroti, Ashluslay and Mataco during the dry season, which I have not seen elsewhere, and which I have not found mentioned in the books I have consulted. I have described it in «Indianerleben»[6]) so that it seems unnecessary to repeat it here.

[1]) p. 211.
[2]) SÁNCHEZ LABRADOR, Vol. 1. p. 223.
[3]) p. 287.
[4]) GRUBB, p. 81 and fig. p. 241.
[5]) KELLER-LEUZINGER, p. 72; see also NORDENSKIÖLD (6) fig. 59.
[6]) p. 48.

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Ashluslay SK5

X.

Domestic Animals and Objects connected with them.

A C 231 The Choroti and the Ashluslay keep dogs, horses, cows, sheep, goats, fowls and cats. Of these the *dog* is the only native domestic animal. The dog is very widely distributed in America. In many cases it is difficult to decide to what extent he has spread beyond his original domain in post-Columbian times. I do not know whether the Chaco dog has been crossed with dogs of European breeds, but in any case he has a very characteristic appearance, and is worth studying by a specialist.

We know that the Indians of the Argentine pampas and of the Chaco Austral became real equestrians soon after the Discovery of America. Their whole life was changed and adopted to the horse.

A C [481 492] The Ashluslay and some of the Choroti also have horses, and *breed horses*. But they are not equestrians, and usually go on foot. Owing to the introduction of horses, they have adopted this and the other accessory to a horseman's equipment, among other things, curious *spurs* of forked wood. (Fig. 11).

The Ashluslay Indians have numerous cows and sheep, and a smaller number of goats. Among the Choroti we find sheep and goats, and few cows. When the cows are killed, their flesh is used; but this may be said to happen rarely.

2: Nordenskiöld E-5 (1908-1909) 1919
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Ashluslay SK5

The wool of the sheep is turned to account. Sheep and goats are sometimes killed.

Cow horns are used as tinder-boxes, spoons and occasionally trumpets.

Little enclosures are sometimes built for the sheep and goats.

Goat horns are also turned into spoons.

Fig. 11. Wooden Spur.
Ashluslay. G. M. (A. 197) 1/2.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XI.

Tools.

A C 412 In the interior of the Chaco there are, as we have already pointed out, no stones at all. Consequently the Ashluslay and the Choroti have no stone tools, their primitive tools being made exclusively of bone, teeth, shells, and hard wood.

As knives they use the sharp-toothed *jaw of the palometa* (round pompano). These knives are used by the Indians of S. America wherever these fish occur, and where the Indians still use primitive tools. Thus, KARL V. D. STEINEN mentions them for the Indians of the upper R. Xingú.

Bone awls are in general use among the Ashluslay and the Choroti, though rather as bleeding instruments than as tools. The bone awl belongs to the objects whose distribution is very difficult to study, as it soon goes out of use when the Indians have obtained iron from the whites. I have seen it, apart from among the above tribes, among the Yuracáre, Chiriguano, Tapiete, Mataco and Toba. A special kind of bone awl is used by the Choroti and the Ashluslay for removing sand fleas (chigoes). I have not seen them elsewhere. [757]

Pieces of shell are used by the Choroti and the Ashluslay as scrapers. It is, of course, impossible to draw up a map of the distribution of such tools.

Very characteristic of the Indians of the stoneless Chaco, the Choroti, Ashluslay, Tapiete, Lengua[1]) and Mataco,

[1]) GRUBB, p. 75.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
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are their knives, saws or scrapers and awls of very hard wood. The knives (fig. 12) are used, for instance, for cutting up fish and fruit, the saws for cutting off caraguatá boughs and for grating the «Mandioca del campo» (manioc). Such tools of wood are unknown among now living Indians, save in the Chaco. Occasionally flat bone knives are seen. I have seen them among the Tapiete and the Atsahuaca, as well as among the Choroti, and the Ashluslay. The wooden tools were originally made in this way: when there had been a

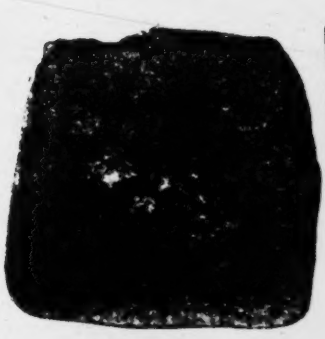

Fig. 13. Iron Knife, Choroti. G. M. (D. 1027) 1/2.

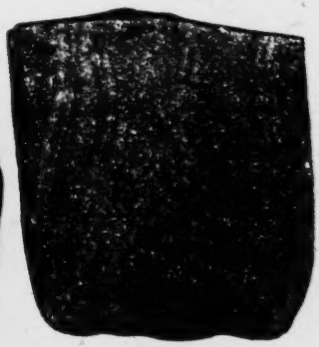

Fig. 12. Wooden Knife. Choroti G. M. (D. 1025) 1/2.

forest fire, suitable pieces of wood were selected, which were then shaped by means of the fire and pieces of shell. They are now cut by knives obtained from the whites.

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C
[439]

By their migrations to the sugar factories in the Argentine, the Chaco Indians have obtained many iron tools. Where iron is still rare, all the pieces of iron are preserved that can be utilized. In Fig. 13 is shown a piece of iron used as a knife, it having received a shape similar to that of the original wooden knives.

The *wooden knives*, as we have seen, are of a square shape. This shape may possibly not have originated in the Chaco. I have found similar stone knives (Fig. 14) in my excavations

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

A
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in a burial ground in Caipipendi in the Chiriguano territory, and BAESSLER[1]) found knives of similar shape, now of stone, now of a copper alloy at Chancay on the Peruvian coast. Bronze knives of this type are also mentioned by LATCHAM[2]), from Caldera in Chile and AMBROSETTI from N. Argentine[3]). I found a bronze knife of this kind at Quiaca in Peru[4]). The knives discovered during archaeological excavations are broader than the wooden ones now in use in the Gran Chaco. Owing to the resemblance in shape that exists between the wooden knives in the Chaco, the stone knives of Caipipendi and the stone and copper or bronze ones from the culture zone in the west, I consider this form of knife, for the present at least, to belong to the cultural elements which reached the Chaco from the culture of the mountains.

Fig. 14. Stone knife, found at Caipipendi in Bolivia. R. M. (K. 101) 1/4.

The *toothed scraper* also seems to be (Fig. 15) a western cultural element. AMBROSETTI[5]) depicts and describes some from La Paya, and assumes that they were used as carding-tools. Very possibly they had a different use in the Chaco from what came under my notice. AMBROSETTI

a. b.

Fig 15. Toothed scrapers of wood. Ashluslay, a — G. M. (B. 247) b G. M. (B. 233) 1/4.

[1]) p. 41, fig. 71—75.
[2]) (2), p. 13, fig. 5.
[3]) (3), p. 193.
[4]) NORDENSKIOLD (3) Pl. 2, fig. 21.
[5]) (6) Vol. 2. p. 483. fig. 254.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

found them in four female graves and in a child's grave. Three of AMBROSETTI's «saws» are adorned with carved human heads. I found a similar object of stone (Fig. 16) which may have been used in this way, at Caipipendi in the Chiriguano territory. A C 4/2

Wooden awls, which I only know from the Chaco, are used by the Choroti and Ashluslay for letting blood. A C [757]

Fig. 16. Toothed stone scraper, Caipipendi, Bolivia. R. M. (K. 194) 1/4

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XII.

Fire-making Apparatuses.

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The method of obtaining fire in the Gran Chaco still consists of drilling with two rods. However, the use of matches, or flint and steel, has obtained a fairly wide spread, thanks to communication with the whites. Cow horns and the tail of the armadillo are used as tinder boxes. Caraguatá bark is used as tinder.

Wooden fire-sticks are widely distributed in S. America. Two kinds may be distinguished. One is so constructed that the powdered wood falls along a groove at the side of the fire-stick onto the tinder. With the other, fire is obtained by drilling through a thin piece of bamboo. In this case the drilling is usually performed with the shaft of an arrow in an arrow-head. I have observed the former kind among the Choroti, Ashluslay, Toba, Mataco, Tapiete, Chiriguano, and Huanyam. It is known almost throughout S. America with the exception of Tierra del Fuego. The latter kind I have seen among the Yuracáre, Chacobo and Guarayú.

It is of some interest to note that the Choroti and Ashluslay in making fire place the drilling-rod in the shaft of an arrow. It this way they can take quite short rods with them on their hunting excursions and other outings.[1])

[1]) See v. Rosen (1) Pl. 13.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

Map 7. Tribes that use the Wooden Spit exclusively.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XIII.

Fire-places and Accessories.

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The fire-places of the Indian tribes here dealt with consist of a few branches laid on the ground, pointing to the same centre, over which the food is roasted or cooked.

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The babracot is unknown in the Chaco, as it is in the Andes, in Patagonia and in Tierra del Fuego. In the Chaco the *Wooden spit* is used exclusively. It is sometimes furcated. (Fig. 17)[1]. Of the Indian tribes visited by me the following exclusively used the spit (Map 7): (2) Ashluslay, (19) Aymara, (5) Chané (4) Chiriguano (1), Choroti, (6) Mataco (18) Quichua (3) Tapiete (7) Toba. The Mestizos in the Argentine also use the spit exclusively.

Fig. 17. Wooden spit. Ashluslay. G. M. (C. 407) 1/5.

The following tribes which I have visited are acquainted with the *babracot* Atsalmaca, Cavina, Chacobo, Chámna, Chimane, Guarayú (Mission); Guarayú (Pauserna), Huanyam, Huari, Tambopata-Guarayo, Vamiaca, Yuracáre.

The babracot and probably also the spit, are to be found among most of the tribes in Brazil, Guayana, Venezuela, and Columbia. The spit, but not the babracot, are stated to be used, in addition, by the (44) Charrua[2] (97)

[1]) See also »Indianerleben», pl. 10.

[2]) Araujo, p. 121.

Map. 8. Distribution of the Pit Oven.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Chorotí
Ashluslay SK5

000 Purí[1]), (45) Botocudo[2]), (V) Yaro = Chaná[3]), (VI) Guarani on the R. Uruguay[4]), (29) Caingáng, Rio Grande do Sul[5]) (27) Ona[6]), (10) Araucanians[7]), (26) Tehuelche[8]) and (8) Lengua[9]).

The spit is used generally throughout the Argentine pampas. According to MAX SCHMIDT[10]) the babracot is not used by the Guató.

The spit is of course a very old cultural element, certainly older than the babracot. On the pampas of Argentine and in the mountains where wood is scarce and strong winds prevail, the babracot has naturally not been employed. But it might well have been, on the other hand, in the Chaco and among the Guató.

The Ashluslay bake in deep holes or pit ovens. I have seen the fruits preparing in them. (Fig. 18). These *pit ovens* have been elsewhere observed by me only among the Tsirakua Indians of the Chaco Boreal.

A 252 354

Pit ovens (Map 8) comparable with those in common use among the (2) Ashluslay and (93) Tsirakua are known from the (8) Lengua in the Chaco [11]) the (03) Tapuya,[12]) (4 x) Timbiras Macameerans[13]) and 38) Tupi[14]) in E. Brazil, the Indians in the district (4 B) of Baraquicimeto, Tocuyo

[1]) WIED Vol. 1. p. 3.
[2]) WIED, Vol. 2. p. 31.
[3]) SKPP. p. 51.
[4]) SKPP. p. 54.
[5]) TESCHAUER, p. 23—24.
[6]) COIAZZI, p. 336.
[7]) GUEVARA (1), p. 64. LENZ, Vol. 1. p. 171.
[8]) BRIESEMEISTER, p. 55.
[9]) GRUBB, p. 96.
[10]) (3) p. 203.
[11]) FRIEDERICI, (3) p. 5., following GRUBB.
[12]) PISO et MARCGRAV, p. 281.
[13]) RIBEIRO p. 321. «Aquelle asqueroso methodo de preparar as suas comidas em covas feitas no chão, cobrindo as viandas com terra afogueada de pedras quentes».
[14]) PISO et MARCGRAV, p. 273.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti :
Ashluslay SK5

and Coro in Venezuela[1]) the (15) Kayapó[2]) and (29) Caingáng[3]) as well as the Araucanians.[4]) [5])

The Mestizos in (87) the Argentine, from Salta to Buenos Aires, also use pit ovens in preparing their famous national dish «Carne con cuero». In the province of Jujuy in the Argentine I have seen Mestizos dig a big pit in the ground

Fig. 18. Pit Oven.
Ashluslay. a = surface. b = bark, grass, etc. c = draught hole, d = slow fire.

in which they made a fire until they had sufficient glow. They then laid the head of a cow in it, and the pit was covered over again. Several hours later the roast cow-head was taken out, and it tasted excellent.

We can see from the distribution of the pit oven that it is a cultural element which, outside the Chaco, is best known in E. Brazil. We can safely count it among the very old cultural elements.

[1]) Simon, p. 384. «No alcbran porq su sustento es frutas de la tierra, que siempre las ay, en especial dat», caça de conejos, y venados, q los asan, metiendolos enteros en vn o,o con su pellejo, y pelo, auiendoles quita lo solo las tripas: Calientan primero el hoyo muy bien, con leña, o paja, y sacandoles las brasas, o ceniza, meten el venado, tapan muy bien con ojas de vihao, y dentro de dos horas lo vueluen a sacar».

[2]) Krause, p. 388.

[3]) Ambrosetti (1), p. 320 (25).

[4]) Medina, p. 208 (following Carvallo, Historiadores de Chile, Vol. 10)

[5]) Preuss (3) has dealt with the distribution of these pit ovens all over the world.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay

A
C
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In the Chaco */fire-fans* of feathers are used. In S. America we can distinguish between a western district with feather fire-fans (Map 9) and a northern and eastern with firefans of plaited palm leaves.

000

I have seen feather fire-fans among the following tribes: (2) Ashluslay, (1) Choroti, (6) Mataco), (3) Tapiete, (7) Toba, (22) Yuracáre and (32) Atsahuaca,[1]); and palm-leaf fire-fans among the Cavina, Chacobo, Chané, Chimane, Chiriguano, Churápa, Guarayú (Mission) Guarayú (Pauserna), Huanyam, Itonama and Siriono.

As far as I have seen, the Aymara and Quichua do not use fire-fans specially made for this purpose. Nor do the Tierra del Fuegians. I have not found any such implements among the Cháma, either. Among the Tambopata-Guarayo, who are closely related to them or indentical with them, I only found a specimen of a small, round fire-fan plaited out of fibre, very different from the fire-fans found among other tribes[2]).

According to PATER SCHMIDT[3]), who has collected some material concerning the distribution of different kinds of fire-fans in S. America, the following tribes have feather fans: (34) Jivaro, (33) Campa, Tšantšamayo[4]) Cokama[5]) (68) Omagua and (86) Yahua. To these, besides the tribes already mentioned, I can add the (12) Mbayá[5]) and the Indians of the upper R. Marañon,[6]) and furthermore grave finds from (A) Pachacamac, Peruvian coast[7]). Fire-fans of

[1]) NORDENSKIÖLD (2), p. 30.

[2]) NORDENSKIÖLD (2), fig. 31.

[3]) p. 1083.

[4]) Not given on the map.

[5]) SÁNCHEZ LABRADOR; Vol. 1. p. 213.

[6]) OVIEDO Y VALDÉS following GASPAR DE CARVAJAL, Vol. 4, p. 550. Not given on the map, as CARVAJAL does not indicate the tribes among which he has seen these fire-fans, and I have better located references to the same district.

[7]) SQUIER, p. 91.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

Map 9. The Distribution of the Feather Fire-fan.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6

palm leaves are widely distributed in the whole of central, northern and eastern S. America.

It cannot be said that fire-fans of feather only occur where no suitable material exists for plaiting them out of palm leaves. Both the Yuracáre and the Atsahuaca have a greater abundance of suitable palm leaves at their disposal than the Chiriguano and the Chané, and yet the former have feather fire-fans, the latter palm leaf ones.

The feather fire-fan is clearly a cultural element with a purely westerly distribution. It is not only the occurrence of the material that decides what kind of fan is used in different places, but old custom is persistently followed everywhere.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashlustay SK5

XIV.

Utensils used in preparing and consuming Food.

a). *Utensils for preparing flour.*

The Chaco Indians here dealt with understand how to prepare flour, as most of the Indians do. For this purpose they use small wooden mortars with pestles of the same material. Occasionally the Ashluslay quite simply use a pit in the ground as a mortar.

Two ways of grinding corn may be said to exist in S. America, in one the corn being crushed in a mortar, while in the other it is ground between stones or between a stone and a wooden block. The distribution of the two methods may be seen from the following table.

Tribes which use wooden mortars.
(See Map 10).

No. on the map.	
61, 48.	Tribes on the R. Negro, R. Yapura and R. Içá, KOCH-GRÜNBERG (2); WHIFFEN[1]), p. 141.
64.	Huari.
40.	Guarayú, Guarayos.
28.	Bakaïrí, STEINEN (3), p. 363.
90.	Chipaya, SNETHLAGE, p. 94.
15.	Kayapó, KRAUSE, p. 388.
13.	Karajá, KRAUSE, p. 254.
50.	Šavajé, KRAUSE, p. 358.
4.	Chiriguano.
21.	Caingúa, OUTES Y BRUCH (5) p. 95.
3.	Tapiete.

[1]) According to WHIFFEN the mortar is only used for pulverizing coca leaves.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6

060 No. on the map.

5. Chané.
6. Mataco.
1. Choroti.
2. Ashluslay.
7. Toba, upper R. Pilcomayo.
9. Toba, lower R. Pilcomayo, Ducci, p. 8.
20. Paressi—Kabiši, Max Schmidt (4), p. 206.
96. Syeberís, Chaco Boreal, Schmidel, p. 257.
38. Tupinambá, Piso et Marcgrav, p. 271; Thevet, p 302.
41. Guarayú, Pauserna.
38. Tupinambá, Yves d' Evreux, p. 168.
55. Kalina, F. P. Penard and A. P. Penard, Fig. p. 112.
31. Trio, Goeje (1), List of words, p. 76.
47. Patamona, Thulin, oral evidency.
47. Makusi " " "
47. Arecuna " " "
54. Guahibo, Stradelli, fig. 16.1.
69. Ipurina, Ehrenreich, (2), p. 62.
29. Caingáng, Ambrosetti, (1), p. 325.
4X. Gês tribes, Maranhão, Ribeiro, p. 188.
XI Yamamadi, Ehrenreich (2), p. 55.
5B Pariri, Nimuendajú-Unkel (1), Word-list.
X Yuruna, v. d. Steinen (2), fig. p. 261.
V3 Caripou, Mocquet, p. 87.
6V Guaná, Comingues, p. 225.
IX Colorados, Rivet, (1) p. 191.
6B Ackawoi, Schomburgk, Vol. I. p. 201.
74. Indians on the lower R. Orinoco, Gilij, fig.
60. Apiacá, R. Tapajos, Coudreau, p. 185.
59. Chrichaná, Barbosa Rodrigues, p. 151.
5c Nambiquara, Roquette-Pinto (2), p. 186, not marked on the map.
36. Ijca, Bolinder, G. M.
16. Guató, Max Schmidt, p. 29. Fig. 81.

Map. 10. Distribution of the Wooden Mortar.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6

000 *The following tribes grind on a stone or a wooden block with a stone or wooden block (mill).*

Atsahuaca, Stone on stone.
Tambopata-Guarayo, » » »
Yamiaca, » » »
Ona, GALLARDO, p. 173, » »
Mosetene, Stone on block of wood
Chimane, » » »
Yuracáre, » » »
Itonama, Stone in trough of wood
Huanyam, » » » » »
Chacobo, Wooden block in wooden trough.
Cavina, » »
Sibipo, v. d. STEINEN (5) Word list, p. 49, stone on stone.
Aymara, stone on stone.
Tehuelche, » » »
Araucanians, LATCHAM, p. 342; PISO et MARCGRAV, p. 285. SMITH, pp. 3 and 315. stone on stone.
Chibcha, RESTREPO, p. 122 stone on stone.
Indians, Chuquimayo, PALOMINO, p. I. Grind Indian corn in «batanes» of stone or wooden troughs.
Quichua (Incas), GARCILASSO DE LA VEGA, p. 207[1]) [2]) RIVET (2) Riobamba, p. 63.
Paez, PITTIER, Pl. IV. 2 Stone on stone
Jjca, BOLINDER (4), p. 57 » » » Also have mortars, probably not Indian.
Motilon, BOLINDER (4), p. 58 » » »
Chimila, » » » »
Goajiro, » » » »

[1]) «La harina la mollan las mugeres en vnas losas anchas, donde echauan el grano, y en cima del trayan otra losa hecha a manera de media luna, no redonda, sino algo prolongada de tres dedos de canto. En los cornejales de piedra hecha media luna ponian las manos, y assi la trayá de canto de vna parte a otra sobre el Mayz.»

[2]) COBO, Vol. 4, p. 170, says expressly that mills are used for preparing flour, and that, for grinding smaller things, they had little stone mortars.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

Map. 11. Distribution of the Manioc Grater.

O Tribes that use a prickley root of a certain kind of palm. ■ Tribes that use a board into which sharp wooden points have been driven. ● Tribes that use a board with stone splinters driven into it. 20.V3 material not specified. Grating boards with teeth instead of stones. ▯ Grating board of baked clay with stones fastened in the clay.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6

Some finds of mills of stone or baked clay[1]).

Mounds, Mojos, NORDENSKIÖLD (10), p. 224. Block and roll of baked clay.

Puna de Jujuy. Stone.

N. Argentina, BOMAN, p. 306, 691; AMBROSETTI (6) Vol. 2 p. 440. Stone.

Rio Cotacajes and Covendo, Bolivia. Stone.

Cordova, OUTES (6), p. 332 seq. Stone, almost mortar-shaped.

Buturo, NORDENSKIÖLD, (3) p. 157. Stone.

San Blas, Argentine, OUTES (4), p. 257. Stone.

Patagonia, Mortar and mill. OUTES (3), p. 431). Stone.

Querandi, BRUCH and OUTES (5), p. 104. Stone.

Corantijn, Surinam, F. P. PENARD and A. P. PENARD, p. 56. Stone.

Sambaquis, Brazil, IHERING, (3), p. 539. Stone.

Rio de Janeiro. NETTO, p. 509.

Thus we see that the wooden mortar for preparing flour in S. America is above all an easterly and northerly cultural element. In some districts the Indians probably learnt the use of the mortar from negroes and whites. It speaks in favour of the pre-Columbian occurrence of the mortar in the Chaco, however, that it is already mentioned for this district by SCHMIDEL. That they should have ground with stones in the mountains of the west of S. America. is not remarkable, as it was difficult or impossible there to find suitable trunks of trees out of which to make large mortars. On the other hand it is very curious that in the wooded districts of N.E. Bolivia there are no mortars, the corn being ground

[1]) The Linden Museum at Stuttgart has an old Peruvian receptacle of wood from Chancay on the Peruvian coast, which was perhaps a mortar; heavy, and made out of a piece of palm trunk, it is 25 cm. high and about 20 cm. deep, with an upper diameter of 13 cm. in the opening. The exterior has incisions which (apparently added later, being very rough) are inlaid with white and red pieces of shell and rock-crystal to form human and other figures (Communicated by Professor Dr. Koch-Grünberg.)

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

with stones in wooden troughs, or on wooden blocks, or with wooden blocks in wooden troughs.

Both the Choroti and the Ashluslay sift the corn through a net, and not therefore through a sieve specially made for the purpose. Of the tribes I got to know on my travels, the Toba, Mataco and Tapiete generally employ this method. All the others[1]) used baskets. The latter include the Chiriguano and Chané.

Pockets are also used for sifting. Honey is strained by the Ashluslay through a specially prepared straining cloth of Caraguatá.

As I have mentioned, the Ashluslay cultivate manioc. So do the Choroti, and probably some of the Mataco Indians. The cultivation of manioc must have reached the Chaco from the north or east. The boards used for rubbing the manioc root, are usual among the Ashluslay and Choroti Indians. These boards, which consist of a piece of palmwood into which numerous splinters of wood have been driven, clearly belong to the cultural elements that the Chaco Indians obtained from the north or east. Among a few tribes in N.E. Bolivia a prickly root of a palm is simply used as a grater, these natural graters probably representing the original type. In some districts sharp splinters of stone, instead of wooden splinters, are driven into the grating board.

Fig. 19. Manioc-Grater, Ashluslay. G. M. (A. 1662) 1/3.

I. The following tribes use a prickly root of a palm as a grater: (62) Chacobo, (22) Yuracáre, (63) Yamiaca and (X) Yurúna.[2])

[1]) With the possible exception of the Huari.

[2]) KLETKE, p. 683.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay. SK5

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A
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[252
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II. The following tribes use a board into which wooden splinters have been driven:

(2) Ashluslay (Fig. 19), (1) Choroti, (28) Bakaïrí[1]) and Suyá[1b]), (XI) Yamamadi[2]), (13) Karajá[3]), (61) Boro, Uitóto, and other tribes between the R. Putumayo and the R. Yapurá[4]) (IX) Colorados[5]) and (5C) Nambiquara.[6])

III. The following tribes use a board with stone splinters driven into it: (38) Tupinambá[7]), (74) Sáliva and other tribes on the R. Orinoco[8]), (47) Patamona, Macusi, Arecuna and other tribes in Guayana[9]), (48) Siusí and other tribes in N.W. Brazil.[10]), (V2) Indians on the R. Guainia[11]), (V5) Makiritare[12]), (55) Kalina[13]), (31) Trio[14]) (V 5) Yekuaná and Guinaú on the upper R. Ventuarí and R. Merewarí.[15])

IV. Without specification of the material: (20) Paressi-Kabiši[16]) and (V3) Caripou at Yapoco[17]).

The (59) Chrichana[18]) have grating-boards with teeth instead of stones. The Waika[19]) use rough slabs of granite

1) v. d. Steinen (2) p. 124.
1b) do. p. 206. Not marked on the map.
2) Rio Purus, Ehrenreich (2) p. 55 «Palm wood spikes.»
3) Krause p. 254. Spikes of «Prejauva wood».
4) Whiffen, p. 131. Palm spikes.
5) Rivet (3), p. 101.
6) Roquette-Pinto (2), p. 185.
7) Lery, p. 110. Thevet, p. 302.
8) Gilij, Vol. 2, p. 304. fig.
9) Im Thurn, p. 260, Museum Material G. M. etc.
10) Koch-Grünberg (2) Vol. 1. p. 77 seq. Vol. 2. p. 205.
11) Ernst, p. 527.
12) Ernst p. 528, Krickeberg, p. 89. fig. 6.
13) Ten Kate, p. 3.
14) Goeje (2) p. 5.
15) Koch-Grünberg (communicated by letter).
16) Max Schmidt (4) p. 206.
17) «rapent sur vne pierre ou sur n bois faict en facon de lime». Mocquet, p. 83. «Ce pays d'Yapoco est à plus de 120 lieues du pays des Toupinambous.» Mocquet, p. 89.
18) Barbosa Rodrigues p. 151.
19) Koch-Grünberg (4), p. 200.

Map. 12. The Distribution of the Wooden bowl.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

as graters. On the coast of Ecuador (J) they have found grating-boards (?) of baked clay with stones fastened in the clay[1]).

It is of great interest to see that in N.E. Bolivia we only find the most primitive form of manioc grating-boards.

b) Cooking utensils.

The Ashluslay and the Choroti cook their food in simple pots of baked clay. Of the tribes I have visited in my travels, the Chámа and Tambopata-Guarayo Indians are the only ones that have no clay vessels. For the rest, very few S. American tribes have no cooking utensils of baked clay. They are the Botocudo and some other Gê's tribes, the tribes of Tierra del Fuego, and now also the Patagonians.

c) Wooden spits.

(See Chapter XIII).

d) Platter, etc.

The (1) Choroti and (2) Ashluslay eat off dishes of baked clay, or off calabash shells. The former, and probably also the latter, have wooden platters as well. The Ashluslay also have large wooden basins.

I have seen wooden bowl (Map 12) among the following tribes in addition to those named: (19) Aymara, (18) Quichua, (5) Chané (4) Chiriguano (6) Mataco, (22) Yuracáre, (23) Churápa and (80) among Indians on the Calilegua, Argentina.

They are also known from the (18) Quichua, Papallacta in Ecuador[2]) (10) Araucanians,[3]) (16) Guató[4]) (49) Araona[5]) (36) Ijca[6]) and the (68) Omagua (?)[7]).

[1]) Joyce, Pl. 6. fig. 2.
[2]) Uhle (1) Vol. 2. Pl. 17. fig. 18—19.
[3]) Latcham (1) p. 342.
[4]) Max Schmidt (3) p. 211.
[5]) Armentia p. 60.
[6]) Bolinder (4) p. 59.
[7]) M. f. V. L. (S. Am. 1350).

Map 13. Distribution of the Wooden Spoon.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

Archaeological excavations have brought to light wooden bowles in the (D) Puna de Jujuy[1]) and on (A) the coast of Peru[2])

To judge from the distribution, the wooden bowl is a cultural element that the Chaco Indians received from the mountain civilization. The archaelogical finds of wooden bowls in N. Argentina show that they were used there in pre-Columbian times.

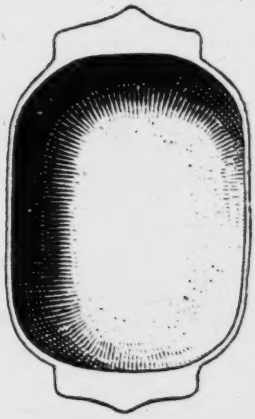

Fig. 20. Wooden dish, Choroti. G. M. (W. 634) 1/6.

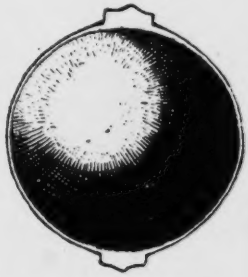

Fig. 21. Wooden bowl. Quichua-Mestizos. Calilegua, N. Argentina. R. M. (u. 24) 1/6

The shape of the little handles on the wooden dishes of the Choroti Indians are very similar to those on the bowls of the Quichua-Mestizos in N. Argentina (Figs 20. 21).

e) *Eating utensils.*

The (1) Choroti and (2) Ashluslay have spoons of wood (Map 13) and horn. As eating utensils they also use mussel-shells and calabashes.

Besides the above-named tribes, I have seen the following tribes in the course of my travels who used wooden

[1]) Lehmann-Nitsche (1), Pl. 5. E. 12.

[2]) Putnam, Pl. 26. fig. 6 and 7.

spoons: (19) Aymara, (18) Quichua (5) Chané (22) Yuracáre (24) Chimane, (3) Tapiete (4) Chiriguano (6), Mataco, (7) Toba and (25) Mojo. 000

For the rest the wooden spoon is not known from many now living Indian tribes. MAX SCHMIDT[1]) describes and depicts wooden spoons from the (16) Guató, LATCHAM[2]) from the (10) Araucanians, EHRENREICH[3])from the (13) Karajá, KOCH-GRÜNBERG[4]) from the (48) Indians on the R. Aiarý in NW. Brazil, RATZEL[5]) from the (V8) Peba and RÉGEL[6]) from the (V9) Indians in Timaná, Columbia.

UHLE[7]) depicts wooden spoons from (XI) Quero (Ambato) Ecuador, (X2) Tacna (Chile), Timana Columbia, and Calderon (Amazon R.) Brazil. BOLINDER[8]) found wooden spoons among the (36) Ijca and the (35) Chimila Indians in Columbia. Wooden spoons are also to be found among many half-civilized Indian tribes in Brazil.

Archaeological excavations have brought to light numerous wooden spoons in Peru, Bolivia and Argentine, proving the wooden spoon to have been a pre-Columbian cultural element there.

Similar spoons have been excavated in the (I1) Puna de Jujuy[9]) at (A) Ancon on the Peruvian coast[10]) at (B) Arica[11]) at (I3) La Paya in N. Argentina[12]) at (B) Hualfin,

[1]) (3) p. 206.
[2]) (1) p. 342.
[3]) (2) p. 26.
[4]) (2) Vol. 1. 2. 111.
[5]) Vol. 1. Pl. to p. 477.
[6]) Pl. 24. fig. 12.
[7]) (1) Vol. 2. Pl. 7.
[8]) (4) p. 50.
[9]) LEHMANN-NITSCHE (1) Pl. 3. fig. 24. 25. Pl. 4. H. 4. Pl. 5. C 3 and E 17; BOMAN, p. 630. 637.
[10]) REISS and STÜBEL, Vol. 3. Pl. 83, fig. 1 and 2.
[11]) JOYCE, Pl. 26. EWBANK, Pl. 10. fig. 2.
[12]) AMBROSETTI (6) Vol. 2. p. 466.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

Catamarca[1]) at (E) Amaicha, Tucuman[2]) in (c) the Puna de Atacama[3]) in (F) San Juan[4]) in Argentine, and in the (G) Ollachea valley, Peru.[5]).

As far as one can judge, the wooden spoon is pre-Columbian in the Chaco. But evidently some forms of it, which are found among tribes that have had much do to with white men, were carved under the influence of the metal spoon which the Indians acquired from the whites (Fig. 25, D.-G.). Still we must not forget that a tribe now carves its wooden spoons on the model of spoons it has acquired from the whites, and yet may have known the spoon at a time when its culture was not influenced by them.

Fig. 22. Wooden spoons from old graves. Rio San Juan del Mayo in Puna de Jujuy (After LEHMANN-NITSCHE.)

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It is therefore very hard to decide where the spoon is a purely Indian cultural element. But that in the main the spoon is a westerly cultural element, is clear. The spoons found among the Choroti and Ashluslay are exactly like the spoons that have been found in old graves in N.W. Argentine, and in consideration of this, as well as of the distribution of the spoon in general, one has every right to assume that this cultural element is derived from the mountain culture. The spoons

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[1]) BRUCH (2) fig. 23.
[2]). AMBROSETTI (2) fig. 249.
[3]) BOMAN, p. 759. AMBROSETTI (4), Pl. 3. fig. 39—41
[4]) DEBENEDETTI (4) p. 78. fig. 62.
[5]) NORDENSKIÖLD (3), p. 32.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

A
C
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found in old graves, as well as the spoons of the Choroti and Ashluslay Indians have a straight handle and a more or less circular bowl (figs. 22 and 24 A, B, C).

The *horn spoon* must be post-Columbian, the material being new.

The *shell spoon* is very widely distributed. It is probably in universal use wherever suitable material is to be found. This is also true of the *calabash spoon*.

Fig. 23. Eating-brush of Caraguata. Ashluslay G. M. (A 1417).

A really original eating utensil is the *eating-brush* (fig. 23). I have seen them in common use among the Ashluslay. They are also known from the Guayaki Indians in Paraguay[1] [2]. In the Chaco they are used for eating honey.

The *wooden knife* used for eating water-melons[3] I have seen exclusively in the Chaco.

[1] Kuxike.

[2] Roquette-Pinto (2) (p. 195) also mentions them from the »sertanejos meladores» in Matto Grosso.

[3] See »Indianerleben», fig. 18.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti
Ashluslay SK5
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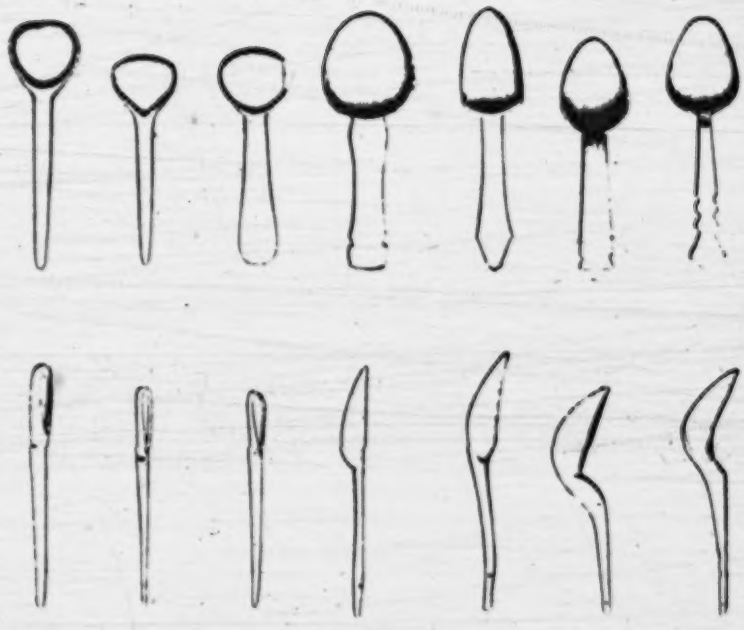

Fig 41.

A.	Wooden spoon.	Ashluslay	R. M. A.	213	1/2
B.	"	"	"	"	212	"
C.	"	"	G. M. C.		100	"
D.	"	Tapiete	R. M. L.		6.	"
E.	"	Mataco	"	M.	382	"
F.	"	Chané	"	P.	97	"
G.	"	Mataco	"	M.	1001	"

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

XV.

Means of Indulgence.

A C 276

The Tobacco Pipe (Map 14)

The Indian tribes here dealt with are keen smokers, and cultivate tobacco themselves.

Chewing coca is unknown to them.

In the following table I give a résumé touching the smoking of tobacco and the chewing of coca in the parts of S. America visited by me.

	No. on the map.	Cultivation of tobacco.	Smokers.	Cigarette Smokers.	Pipe Smokers.	Coca chewers.	Tobacco used only as a medicament.
Ashluslay	2	+	+		+	—	—
Atsahuaca		?	?	?		?	?
Aymara						+	—
Baure		+	+	+		—	—
Cavina		?		?		+	—
Chacobo		+			—	—	+
Cháma		-?	—	—	—	—	?
Chané		+	+	+	—	—	—
Chimane	24	+	—	—	—	—	+
Chiriguano		+	+	+	+	—[1]	—
Choroti	•	+	+	—	+	—	—
Churápa		+	+	+	—	—	—
Guarayú (Guarayos)	40	+	+	+	+	—	—

[1] Coca chewing has been introduced of late among a small number.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

	No. on the map.	Cultivation of tobacco	Smokers	Cigarette Smokers	Pipe Smokers	Coca chewers	Tobacco used only as a medicament
Guarayú (Pauserna)		+	+	+	—	—	—
Huanyam		+	+	+ ?	—	—	—
Huari		+	+	+ [1])	—	—	—
Itonama		+	+	+	—	—	—
Mataco	6	+	+	—	+	—	—
Quichua		—	—	—	—	+	—
Siriono	51	—	+ ?	—	+ [2])	—	—
Tambopata-Guarayo		+	—	—	—	—	?
Tapiete	3	—	+	—	+	—	—
Toba	7	+	+	—	+	—	—
Tsirakua		?	?	?	?	?	?
Yamiaca		?	?	?	?	?	?
Yuracáre		+	—	+ [3])	—	—	+ [3])

The Choroti and the Ashluslay smoke pipes, as the table shows. The pipe is also known to the following tribes, besides those given in the résumé: (52) Mocovi[4]), (x 4) Payaguá[4]), (8) Lengua[4]), (11) Chamacoco[4]), (12) Mbayá[4]), (21) Cainguá[4]), (13) Karajú and (50) Savajé[4,5]), (46) Conibo[6]), (10) Araucanians[4]), (26) Tehuelche[4]), (63) Tapuya[8]), (37) Motilon[7]), Arecuna and Patamona[9]).

1) Cigars.
2) According to CARDÚS, p. 282. »No para fumar, sino para humear.»
3) Not great smokers. Tobacco chiefly used as a medicament.
4) NORDENSKIÖLD (3 B)
5) PHILIP (1), Vol. 2, Pl. 27, fig. 12.
6) ROULOX BARO, p. 238, 241; PISO et MARCGRAV, 274 p.
7) BOLINDER (2), p. 37.
8) KRAUSE, p. 350.
9) G. M. Collection Liljewalch-Thulin. Not marked on the map.

Map 14. The Distribution of the Tobacco Pipe.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

000 Archaeological excavations have unearthed pipes in (U) Patagonia[1]), in (V), (Z) Chile[2]), at several places in (A), (E) N. Argentine[1]), in (S) Rio Grande do Sul[1]), (m) Parana[1]), (1) San Paulo[1]), (b) Alagoas[1]), (k) Bahia[1]), (x) Surinam[1]), (R) on the L. of Valencia in Venezuela[1]), on the Island (Y) of Koati on the L. of Titicaca[3]) at (W) Tunja[1]) and (T) Antióquia[1]) in Columbia and at (Ä) Caipipendi (Ö) Tarupayu in S. Bolivia and at (H) Buenos-Aires[4]).

As we see, the tobacco pipe has a considerable distribution in S. America, and is probably a very old cultural element there. This holds good especially of the simple tubular pipes in common use among the Choroti and the Ashluslay.

In the west of S. America, in the old culture zone, pipes have been found only in (E), (A) N. Argentina and on (Y) the Island of Koati on the L. of Titicaca. No pipes have been found in the old graves on the coast of Peru. Smoking was probably unusual in Peru, although tobacco was cultivated there. However, it seems to have been used occasionally as snuff. The medicine men employed tobacco to induce ecstasy[4]). It is therefore, as we see, not to be assumed that the Chaco Indians learnt smoking from the cultural tribes of the Andes.

A C 276 For *cleaning the pipe* the Ashluslay and the Choroti use specially prepared *little pointed sticks*. I have not seen them elsewhere. Like the Mataco they also make use of a filter of plant fibres in their pipes, of which I have seen no mention as regards other Indian tribes. The Chaco Indians occasionally mix their tobacco with a fragrant bark.

The Ashluslay and the Choroti have many different types of pipes, some of which I have depicted in earlier works. It is impossible to say whence these types derive.

[1]) Nordenskiold (4 B).
[2]) Guevara (2).
[3]) Bandelier, Pl. 77.
[4]) v. Tschudi, p. 141, with bibliography
[5]) Ameghino Vol. 1, p. 205.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

Map. 15. The Distribution of the Fur Cloak.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

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XVI.

Dress.

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The men of the tribes here dealt with, wear, as a rule, big mantles or blankets of home-woven woollen material in which they wrap themselves. They sometimes wear leather sandals. They fasten the blanket with a girdle of leather or woven wool. Occasionally they wear very short shirts, sewn of Caraguata, and now and then woollen shirts. More rarely they wear a poncho. The younger Choroti and Mataco women have a kind of shirt made of textile material, which they get from the whites; the older women have a apron of similar material, or of woven cloth, round their loins. In the same way the Ashluslay women wear an apron of leather or home-woven wool. Occasionally the younger women have a short skirt, called a «tipoy». The women, too, sometimes wear sandals. They do not fasten the apron round the loins by means of a girdle, but by a cord. Now and then the Ashluslay women have large four-cornered cloaks made of a number of coypou or sheep skins sewn together.

Fur cloaks (Map 15) are practical in the cold climate of the most southerly part of S. America and in the mountains. But they are not used in the Andes. In the Chaco, among the tribes I am dealing with, they were formerly in common use, but are now disappearing. This is owing to the fact that the coypou skins from which they are generally made are in great demand among the whites as an article of trade, so

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

that the Indians prefer to use them for barter rather than as an article of clothing. Woven cloaks have, moreover, displaced fur cloaks. Characteristically it is exclusively the conservative women in the Chaco who wear the fur cloak.

Fur cloaks are worn in the Chaco with the fur inside. The plain side of the skin is generally painted. Each skin is painted separately, and then a number are sewn together.

The Tehuelche also wear their cloaks with the fur inside. The Ona, however, wear them with the fur outside, and this tribe leaves the plain side unpainted.

I have seen these cloaks among the (6) Mataco, (2) Ashluslay and (7) Toba, where they are usually made of coypou skin, rarely of sheep or fox-skin. DOBRIZHOFFER[1]) mention them from the (17) Abipone, DUCCI[2]) from the (9) Toba, SANCHEZ LABRADOR[3]) from the (12) Mbayá, SCHMIDEL[4]) from the (3V) Querandi, HAWTREY[5]) and GRUBB[6]) from the (8) Lengua, STADEN[7]) from the southern (38) Tupinambá, ARAÚJO[8]) following PERNETTY from the (44) Charrúa, SEPP[9]) from the (64) Yaro-Chaná, FALKNER, MUSTERS, PIGAFETTA[10]) and others from the (26) Patagonians, GALLARDO, COIAZZI, OTTO NORDENSKJÖLD and others from the (27) Ona, SKOTTSBERG[11]), MEDINA[12]), HYADES and DENIKER[13]) and other from the (XV) Yahgan, the (2V) Chono and the (1V) West Patagonians,

A C 291

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1) Vol. 2, p. 142.
2) p. 40.
3) Vol. 1, p. 280.
4) p. 150.
5) p. 282.
6) p. 62.
7) Vol. 2 (p. 3).
8) p. 129.
9) p. 50.
10) p. 12—13.
11) p. 267.
12) pp. 106—107.
13) p. 317.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

MEDINA[1]) from the (10) Araucanians (?). UHLE[2]) found similar cloaks at (B) Arica.

The fur cloak belongs to the southern cultural elements which extend right up into the Chaco, and show that the original culture of the tribes living there is connected with that of the Patagonians and Fuegians.

As an every day garment the fur cloak is unpractical in the Chaco, which has a tropical climate and is infested with insects. But it is good to have when the cold winds sweep over the plains. DOBRIZHOFFER[3]) says that among the Abipone the fur cloak is used by men and women alike when the weather is cold. *Old people of both sexes wore fur cloaks in the warmest weather.* They evidently clung to an old custom.

The commonest male dress among the Choroti and the Ashluslay is a large home-woven *woolen cloak*, in which they drape themselves in the same way as in their fur cloaks.

I found the woven cloak in use among the Chané, Choroti, Mataco, Toba, Ashluslay and Tapiete. HAWTREY[4]) mentions it from the Lengua, FALKNER[5]) from the tribes in Patagonia, except the «Tehuelhets» and «Cheechehets», LUIS DE LA CRUZ[6]) from the Peguenche, and DOBRIZHOFFER[7]) from the Abipone.

In the mountains home-woven rugs were, and are still, used as beds. When used as a article of dress by the men, they always have a hole in the middle for putting the head through (Poncho).

The Aymara and Quichua women wear a shawl round the shoulders.

[1]) p. 104.
[2]) p. 11.
[3]) Vol. 2, p. 152.
[4]) p. 282.
[5]) p. 112.
[6]) p. 33.
[7]) Vol. 2, p. 150.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

These cloaks are now made in the Chaco out of sheep's wool. We may therefore ask whether the custom of making and using these cloaks dates from post-Columbian times, or whether it is older, i. e. were they made of other material in pre-Columbian times? SCHMIDEL[1]) says that the Indians in the Chaco had llamas, which I consider not at all improbable, as it is known for certain that the Indians in N. Argentina had llamas as far south as Córdova, and, as we shall see from the following, the Chaco Indians had connections with these Indians. It is certain that llama can live in the Chaco, as the guanaco, which is very closely allied to the llama, is found between the R. Parapiti and the R. Grande. It is therefore possible that in pre-Columbian times they had cloaks of llama wool. Still, it is probable that in pre-Columbian times more cotton was used than now for textile fabrics. SCHMIDEL speaks exclusively of cotton clothes. The Indians possibly weave more than they used to since sheep-rearing was taken up. It is certainly not the white men that taught them to weave.

The Tsirakua Indians in the Chaco Boreal have cloaks of Caraguatá.

It is not impossible that these cloaks once had a much wider distribution than now.

The *Poncho* is, as everybody knows, a square piece of cloth with a hole in the middle, through which the head is put. The poncho being sewn together at the sides, with an opening left for the arms, the result is a sleeveless shirt. To this sleeves can then be sewn. The poncho has certainly developed from the cloak, it being nothing but a cloak with a hole in the middle.

Apart from the cloak, the poncho and the shirt, the Indians throughout S. America have no native male garment which protects the body from cold and which covers the greater part of it. This slight variation in the cut of the

[1]) p. 418.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti
Ashluslay SK5

clothes is no doubt due to the Indians not having understood the art of weaving cloth by the yard, and the cutting off pieces to make clothes, but have woven their pieces of cloth to the size of the garment.

In pre-Columbian times the art of cutting out garments from cloth may be said to have been unknown in S. America.

The shirt and the poncho are typically western cultural elements, which we only find within the old culture zone and in contiguous districts. In the mountains the primary

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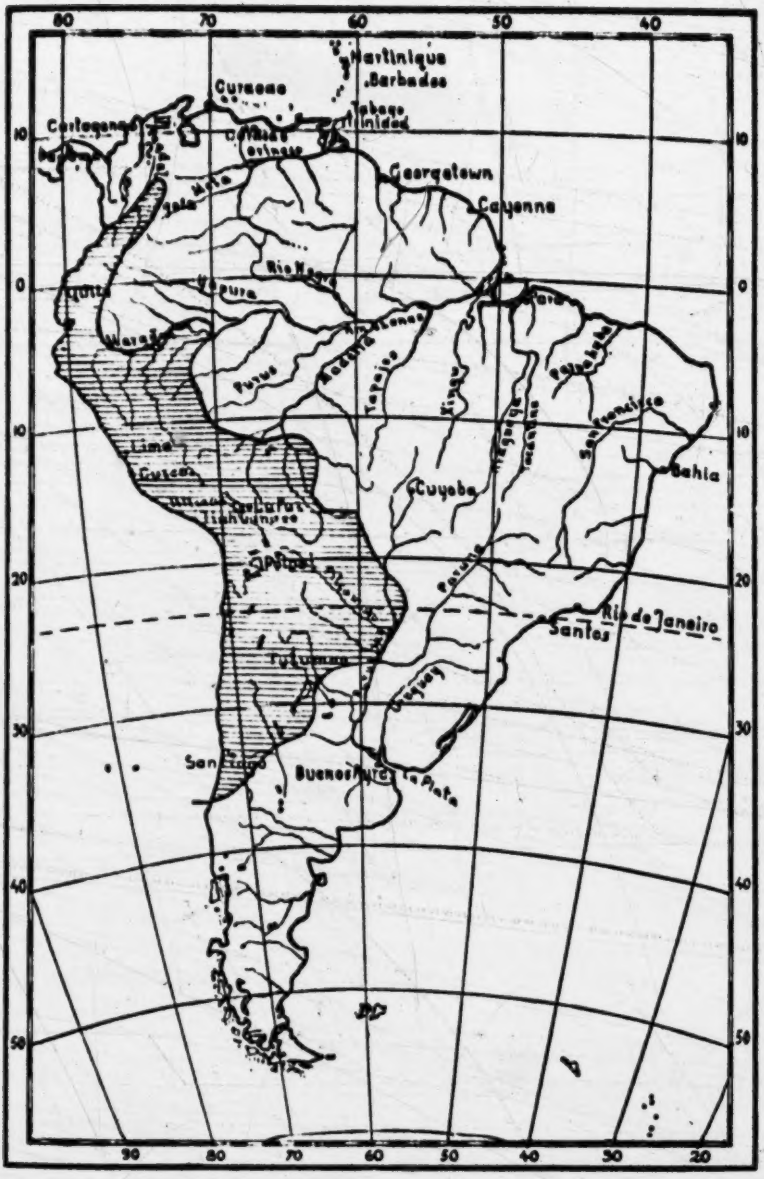
Fig. 25. Shirt of Caraguatá.
Ashluslay. R. M. (A. 1516) 1/12.

object was to protect the body against cold. Also in the parts east of the Andes, as in the Gran Chaco and in Mojos, the weather can be very cold during certain parts of the year, particularly in May and June. In the primeval forests clothing is, moreover, a protection against insects, and therefore practical in every region.

The poncho is worn exclusively by men, the shirt occasionally by women, the latter being presumably due to the influence of the missionaries, who abhorred nakedness.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6



Map. 16. The Distribution of the Shirt.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti
Ashluslay SK5

As an article of dress for men, the shirt reaching to the feet was also introduced by the missionaries as a transition garment to European clothes

As has been stated, it is of interest that among the Mbayá the long shirt is only worn by the medicine men[1]), and among the Chiquitos only by chiefs and the Indians of high rank. Again, just as the chiefs and the medicine men

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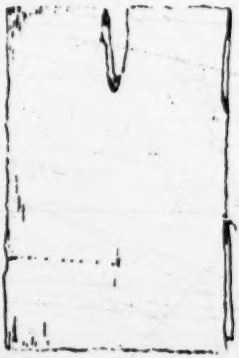

Fig. 20. Shirt of Caraguatá.
Ashluslay. R. M. (A. 1514) 1/10.

were the first to adopt the clothing of the whites, they adopted the garb in use among the cultural races in the Andes. They set the fashion.

From the following table we can see the distribution of the *shirt* in the districts visited by me. In Map 16 I have dotted the district where the shirt is, or was, used. As I have mentioned, the distribution of the shirt has been extended in post-Columbian times.

[1]) Sánchez Labrador, Vol. I, p. 283.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

The Distribution of the Shirt +
in the districts visited by me (See Map 16).

	Reaching to the feet.	Used by the men.	Used by the women.	Material.
Ashluslay.		+		Caraguatá[3]).
Atsahuaca	+	+	—	Bark fabric[1])
Baure.	+	+	+	Cotton.
Chacobo.	+	+	—	Bark fabric
Cháma	+	+	+	» [1])
Chané	+	+	—	Cotton.
Chimane.	+	+	+	» [2])
Chiriguano.	+	+	—	»
Choroti.	—	+	—	Caraguatá
Guarayú (Guarayos)	+	+	+	Cotton[2])
Guarayú (Pauserna)	—	—	—	
Huanyam	+	+	+	Bark fabric
Huari				
Itonama.	+	+	+	Cotton.
Mataco	—	+	—	Caraguatá[3])
Siriono.	—	—	—	
Tambopata-Guarayo.	+	+	—	Bark fabric [1])
Tapiete.	—	—		
Toba.	—	+		Caraguatá.
Tsirakua.	—	—		
Yamiaca.	+	+	—	Bark fabric [1])
Yuracáre.	+	+	+	»

[1]) or cotton.
[2]) or fabric of bark.
[3]) or wool.

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2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6

The Distribution of the Shirt according to archaeological finds.

BOMAN[1]) mentions the shirt from Casabindo, Sayate (Puna de Jujuy), Chiuchiu and Calama (Puna de Atacama), Ancon, Pachacamac, Paramonga, Fresco de Pucará de Rinconada (rock painting) and Chulin. Shirts on the coast of Peru have been found, for instance, depicted in REISS and STÜBEL's big work on Ancon. BANDELIER[2]) found shirts in graves on L. Titicaca, DEBENEDETTI[3]) a shirt in a grave in San Juan.

The Distribution of the Shirt as recorded in literature before 1800.

Men.

The Indians of the mountain districts of Columbia[4]), Paez[5]), the Indians of Llactacunga, Ecuador[6]), of Pansaleo, Ecuador[7]), of the Peruvian coast[8]), the Chanca[9]), Inca[10]), Juri[11]), Diaguita[12]), Comechingon, Sierra de Córdova[13]), Pacaje (Aymara[14]),) Araucanians?[15]) Omagua[16]), the Indians of the upper R. Marañon[17]), tribes of the upper reaches of the Ama-

[1]) p. 590 and p. 754.
[2]) Pl. 62 and 66.
[3]) (4) p. 70.
[4]) PIEDRAHITA, p. 15. (not precolumbian, RESTREPO, p. V.)
[5]) UBRIOCHEA (2) p. XIII, following RODRIGUEZ, p. 74.
[6]) CIEZA DE LEON (1), p. 151
[7]) ibid, p. 140.
[8]) ibid. p. 219—220.
[9]) ibid, p. 315.
[10]) COBO, Vol. 1, p. 160; CIEZA DE LEON (1), p. 270.
[11]) CABRERA, p. 140.
[12]) PACHECO, p. 147.
[13]) NARVAEZ, p. 151.
[14]) MERCADO DE PEÑALOSA, p. 59.
[15]) MEDINA, p. 164.
[16]) [MARONI] p. 190. LAURIANO DE LA CRUZ p. 98. Tribes lower down the Amazon naked. LAURIANO DE LA CRUZ, p. 108, 109.
[17]) ORTIGUERA p. 322, 329.

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zon[1]), Chuquimayo[2]), Zevero[3]), Mayna[4]), Mojo[5]), Chiquitos[6]), Mbayá[7]), Chaná[8]), and Payaguá[9]).

Women.

Chiquitos[10]), Cholone and Hibito, on the Huallaga[11]) and the Peruvian coast[12]).

The Distribution of the Shirt as recorded in literature since 1800

Men.

Köggaba[13]) Indians of Otavalo, Ecuador[14]) Yumbo[15]) Zaparo[16]) Ankutere [17]) Piro[18]) Campa[19]) Amahuaca[19]) Remo[19]) Conibo[19]),[20]) Setebo[19]) Sipibo[19]) Cashibo[19]) Manetenery[19]) Canamary[20]), Guarayú[21]), Araona[22]), Huachipairi[23]) and Motilon[24]).

[1]) Ibid. p. 370.
[2]) PALOMINO, p. XLIX LI.
[3]) CHANTRE Y HERRERA, p. 144.
[4]) SAAVEDRA, p. CXLIV.
[5]) EDER, p. 220; CASTILLO, p. 424. Of bark fabric or cotton.
[6]) FERNANDEZ, p. 31; BURGOS, p. 42.
[7]) SÁNCHEZ LABRADOR, Vol. 1, p. 284.
[8]) ibid. Vol. 2, p. 270.
[9]) AZARA (1), p. 120.
[10]) FERNANDEZ, p. 31.
[11]) SKINNER, Vol. 1, p. 304.
[12]) CIEZA DE LEON (1), p. 219 220.
[13]) BOLINDER (4), p. 62.
[14]) UHLE, (1) Vol. 2, Pl. 14, fig. 2. Quichua speaking Indians, Ecuador.
[15]) OSCULATI, p. 107.
[16]) ibid. p. 108.
[17]) ibid. p. 104.
[18]) RAIMONDI, p. 668 669.
[19]) Rio Yuruá, CHANDLESS, p. 101.
[20]) Rio Purús, CHANDLESS, p. 103.
[21]) D'ORBIGNY, Vol. 2, p. 328.
[22]) ARMENTIA, p. 61.
[23]) LA COMBE, p. 43.
[24]) BOLINDER, (2) p. 29.

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Women.

Mitua[1]), Guahibo[2]), Yururo[3]), Aguaruna[4]).

The poncho is used by the Chiriguano, Chané, Quichua, Aymara, and rarely by the Choroti, Toba, Mataco, Tapiete and Ashluslay. From books I have noted the poncho for the following tribes: Ijca[5]), Inca[6]), Patagonians[7]), Goajiro[8]) Peguenche[9]), Araucanians[10]), Coroado or Gaingang[11]), Rio Rio Grande do Sul, Guaná[12]), Gran Chaco and Colorados[13]) Ecuador (very small). UHLE[14]) depicts ponchos of Indians or mestizos at Pasto in Columbia and Quito in Ecuador. DEBENEDETTI[15]) found a poncho in a grave at San Juan. BOMAN[16]) mentions ponchos from graves in Puna de Jujuy and Puna de Atacama.

It plainly follows from the distribution of the shirt and of the poncho that these cultural elements derive from the mountain culture of the Andes. It is remarkable that their distribution has not extended. The long, trying work required for weaving a shirt has, of course, been a hindrance to its spread. That shirt and the poncho have not driven the woollen cloaks from the Chaco is probably due to their serving at the same time as excellent rugs, and that it is espe-

[1]) CREVAUX, p. 178.
[2]) Ibid. p. 550.
[3]) Ibid. p. 500.
[4]) QUINTANILLA, p. 78.
[5]) BOLINDER (4), p. 61.
[6]) Cobo, Vol. 4, p. 160.
[7]) FALKNER, p. 112.
[8]) PLEVTE, p. 246.
[9]) LUIS DE LA CRUZ, p. 33.
[10]) LATCHAM (1), p. 330.
[11]) TESCHAUER, p. 21.
[12]) COMINGES, p. 305.
[13]) RIVET (3), p. 186.
[14]) (1) Vol. 2, Pl. 13.
[15]) (4) p. 70.
[16]) BOMAN, p. 503 and p. 754.

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cially at night that the Indians there must protect themselves against cold.

The real garb of the Indian woman among the Choroti, Mataco and Ashluslay consists, apart from the fur cloak mentioned above, of a *loin cloth*. It may be, as it often is among the Ashluslay, sewn together of several deer skins stripped of the hair, or it may consist of a piece of woollen cloth, as among the Choroti and Mataco. Occasionally the Ashluslay girls may be seen wearing a short skirt woven in one piece, a short «tipoy» (fig. 27).

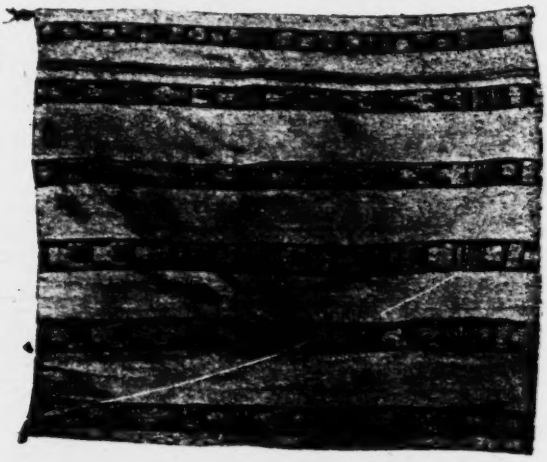

Fig. 27. Woman's garb of wool. «Tipoy». Ashluslay. G. M. (A. 173) 1/8.

The oldest of these is undoubtedly the fur garment. We find it, moreover, among the Lengua[1]). The garment of home woven woollen fabric was probably introduced, like the woven cloak, under the influence of the mountain culture.

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We do not find the like among the tribes I visited in N.E. Bolivia and its environs.

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[1]) GRUBB, p. 69.

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The *tipoy*, i. e. a sack open at both ends, which is worn as a skirt when short, and from the shoulders to the feet when long, occurs inter alia among the Ashluslay (of wool, short), Guarayú-Pauserna (of cotton, short), Siriono (short, knitted of bark fibre), Guarayú (short, cotton)[1]), Karkhohbries (Gorocotoques, cotton)[2]), Mojo[3]), Carios-Tupinambá[4]), (long), Paressi-Kabíšĭ[5]) (short, of cotton), Chiriguano and Chané (of cotton or wool, long), Chiquitos[6]) Guarani, Paraguay[7]), Xarayes[8]) (of cotton), Guayaná[9]) and Payaguá[10]).

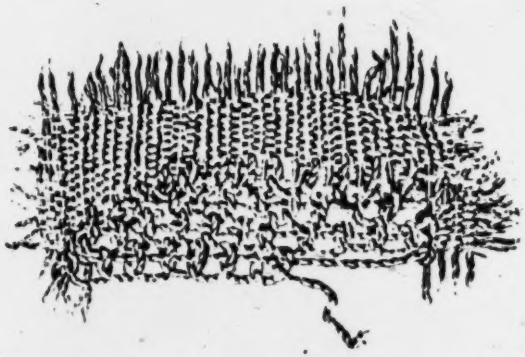

Fig. 28. Piece of a woman's dress, darned. Choroti. G. M. (D. 239) $^2/_3$.

The clothes, especially the women's clothes, are often darned. (Fig. 28). On the other hand, you never see them patched. To mend a hole by putting a patch over it, seems to be unknown to the Indians throughout S. America, i. e.,

[1]) D'Orbigny, p. 328 (Guarayos).
[2]) Schmidel, p. 264.
[3]) Castillo, p. 324.
[4]) Staden, Vol. 2 (p. 3) Piso et Marcgrav, p. 270.
[5]) Max Schmidt (4), p. 180.
[6]) Burgos, p. 42.
[7]) Azara, (2), p. 416.
[8]) Nuñez Cabeza de Vaca, Vol. 1, p. 300.
[9]) Teschauer, p. 18.
[10]) Azara (2), p. 360.

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the Indians who have still kept their original culture. The Incas, too, did not patch, but darned their clothes[1])

As foot-gear the (1) Choroti (Fig. 29 a) and the (2) Ashluslay (Fig. 29 b), use, as we have mentioned, *sandals* (Map. 17). These are very practical in the hills, where the soil is stony, and in woods where there are many prickly plants. They are less serviceable in the tropical rainy woods, where they are always getting wet and soon become soft and rot.

In the parts visited by me, the following additional tribes wear sandals: (19) Aymara (5) Chané (4) Chiriguano (6) Mataco (18) Quichua (3) Tapiete (7) Toba and (93) Tsirakua.

Fig. 29. Sandal of leather. Choroti. G. M. (D. 1189). 1/3.

Among all these tribes the sandals are of leather, except among the Tsirakua, who occasionally have wooden ones. These Indians also have a curious fastening to the sandal, differing from the usual kind[2]). In the graves on the Peruv-

[1]) »Porque con ella y hilo de lo mismo que son los vestidos, las cosen y remiendan, porque no usan para remendar añadir parte de su paño sobre la rotura, como nosotros, sino que van zureiendo con un hilo de la misma lana lo que de la urdiembre se ha gastado.»
Cobo, vol. 4. p. 103.

[2]) See »Indianerleben» fig. 138.

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ian coast numerous sandals have been found, thus at (A) Ancon[1]) and at (B) Arica[2]), as well as at other places (K)[3]).

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Fig. 20 b. Sandal of leather. Ashluslay. R. M. (A. 1020). 1/2.

Sandals have also been found in the (D) Puna de Jujuy[4]) in Argentina.

PIETSCHMANN[5]) quotes some references to the occurrence of the sandal in old Peru. BOMAN mentions sandals from the (E) Diaguita[6]), following ROMERO and MONROY.

MERCADO DE PEÑALOSA gives them as occurring among the (19) Pacaje[7]).

Sandals were probably worn throughout the Inca realm. On the other hand the Indians in Columbia seem to have gone barefooted as a rule at the time of the Discovery. The only reference I can find to the use of foot-gear there at that time, occurs in an account of the first voyage of Pizarro and Almagro along the west coast of Columbia (01). The author[8]) says that the Indians protected their feet by means of sandals or slippers of bark when walking on the glowing soil.

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[1]) REISS and STÜBEL, Vol. 3, Pl. 83, figs. 16 and 17.

[2]) UHLE (1), Vol. 1, Pl. 25, fig. 26. The primitive fishermen at Arica had no sandals. (UHLE (6), p. 11).

[3]) WIENER, p. 677.

[4]) BOMAN, p. 593. LEHMAN-NITSCHE (1) Pl. V, B, 11.

[5]) p. 148.

[6]) p. 141.

[7]) p. 59.

[8]) SAMANOS, 194.

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Map 17. The Distribution of Foot-gear.

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In modern times sandals are mentioned by HAWTREY[1]) for the (8) Lengua, by BOGGIANI[2]) for the (11) Chamacoco, by BOMAN[3]) from the (D) Puna de Jujuy, by RIVET[4]) for the (18) Quichua Indians, Riobamba, Ecuador, by Im Thurn and others from (47) Brit. Guayana. The Guayana sandals are made of the leaf-stalk of a palm, *Mauritia flexuosa*. The fastening is somewhat different from that used in the Chaco.

Of the tribes visited by BOLINDER on his journey in Columbia, only the civilized (02) Busintana and the (02) Ijca had sandals[5]). They consisted of ox-hide.

According to DOBRIZHOFFER[6]) the Abipone did not wear sandals, nor did they seem to have been used originally by the Araucanians[7]).

According to AMBROSETTI[8]) the Caingáng, when in hostile country, wear a curious kind of sandals, which are of such a shape that it is difficult to make out in which direction the tracks run.

It is notable that the Indians living on the islands at the mouth of the Amazon had leather sandals in the middle of the 16th century. This is stated of them by those who have described the voyage of Aguirres the Tyrant[9]). But it is

[1]) p. 282.
[2]) (1) p. 31.
[3]) p. 115.
[4]) (2) p. 50.
[5]) BOLINDER (1), p. 64. G. M.
[6]) Vol. 2. p. 129.
[7]) LATCHAM (1), p. 336.
[8]) (1) p. 332. »Calzado no usan, pero cuando van en marcha, ó á alguna sorpresa, ó no quieren que se les siga el rastro, acostumbran ponerse, bajo la planta del pié, un atado de paja, cuyas puntas doblan para arriba de modo que no puede saberse cual es la direccion de la marcha que llevan, puesto que, tanto de uno como de otro lado, el rastro es igual.»

[9]) »La gente, desnuda y bien dispuesta; traen en la planta de los pies unas suelas de cuero de venado, y otros de anta, atadas ó ligadas por encima del empeine del pie con un lazo ó ligadura de hilo de algodon, de la suerte que se pintan algunas figuras antiguas y de la manera que hoy las traen algunos Indios del Piru.» ORTIGUERA, p. 373. See also JORNADA DE OMAGUA Y DORADO, p. 190.

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Ashluslay SK5

curious that the Indians in these swampy parts should have worn leather sandals, which would soon have rotted away in a damp climate. When I passed from the mountains into the primeval forests of the border country of Peru and Bolivia in 1904—1905, my carriers had to take off their sandals at every brook we had to wade through, to keep them from rotting.

Also the (03) Tapuya, but not the Tupinambá on the Brazilian coast, had sandals. Of the former MARCGRAV[1]) writes: «Loco calceorum nostratium, è certo cortice *Curagua* ipsis vocato, factis utuntur atque illos vocant *Miapapacaba*, Lusitani autem *Alpargatas*.» Of Indians in the same region FREI VITAL DE FRESCAROLO[2]) mentions sandals out of Caraguatá.

It is probable that the Indians in the Chaco originally learnt the use of sandals in their present form from the culture zone in the west. Foot-gear in general, however, to judge from the wide-spread and partly sporadic use of it, seems to be a very old cultural element in S. America. Outside the old cultural zone in the west, where slippers were also worn, any other foot-gear than sandals is rare. In the form of very primitive leather shoes we only find it among the (26) Patagonians[3]) and the (27) Ona[4]).

In the swampy districts the Ashluslay wore a kind of *stockings*, made in a curious way, as a protection against the greedy and dangerous palometa fish (the pompano). I have not seen such stockings elsewhere, and have only seen a mention of them in a description from Venezuela, as early as the 16th century, SIMON[5]) mentioning them from the voy-

[1]) p. 271.

[2]) p. 115. «Alparcatas de cravutá,calçado com que andão nos matos.»

[3]) PIGAFETTA, p. 12.

[4]) GALLARDO, p. 155.

[5]) «. . llevando algunos de los soldados algunas calças enteras de red con muy gruesos nudos, que se hallaron entre el demas pillaxe de aquella gente, que vsaban dellas en aquella Prouincia, para entrar a pescar en las

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age of Herrera. The Spaniards must have thought them peculiar, since SIMON, who as a rule does not go into the details of ethnographical objects, decribes them minutely. It was on the R. Orinoco that the Indians wore them. They must also have been in use in other parts than Venezuela and the Chaco, though not noticed there, since it is improbable that the Indians in the Chaco and in Venezuela should have indepently hit upon the use of such stockings.

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The Ashluslay and the Choroti wear *girdles*, now made of wool, now of leather.

The woven girdles in S. America belong to the westerly cultural elements. We find them in old graves on the Peruvian coast[1]). I have seen them among the Aymara, Quichua, Chiriguano, Chané, Mataco[2]), Choroti, Ashluslay, Toba, and Tapiete. They are known from the

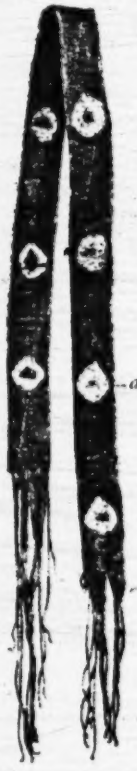

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Fig. 30. Girdle coloured by »tying round»-dyeing. Mataco. R. M. (M. 50). 1/10.

cienagas con que se defendian de vnos peces que los Españoles llamaron Caribes por ser tan fieros, y atreuidos q. hasen presa en todo lo que topan dentro del agua: y assiendo destos nudos quando entrauan los Indios a pescar, quedaua libre la carne de sus vocas. SIMON, p. 224.

[1]) CHILE (2).

[2]) The Mataco Indians occasionally dye the woven girdle in a way that is of anthropo-geographical interest. They use the »tying round» method of dyeing, which is as follows: Those parts of the material that are to remain undyed, are firmly bound round, whereupon the material is dipped in the dye. The parts »tied round» remain undyed (Fig. 30 a) This method was in use on the Peruvian coast, as well as in the Chaco. A piece of material, dyed in this way was brought home by STOLPE (R. M.) It was presumably found at Ancon. The same method is known to the Quichua-Mestizos on Mt. Calilegua in N. Argentina, and has thus, as far as can be judged, reached the Chaco from the mountain culture.

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Araucanians[1]), Abipone[2]) Ijca[3]), Goajiro[4]), Lengua[5]), Caingué[6]), the Indians in Quito, Riobamba and Angamarca, Ecuador, Popayan in Columbia and Chachapoyas in Peru[7]). They are worn everywhere in conjunction with the dress, and for the most part only by the men.

Fig. 31 a. Leather girdle. Choroti. G. M. (D. 1170). 1/7.

Fig. 31 b. Leather girdle. Ashluslay. G. M. (C. 7). 1/7.

Leather girdles are to be found among the Mataco, Choroti (fig. 31a), Toba, Tapiete, Ashluslay, Chiriguano and Chané.

These girdles are sometimes worn on the body, even when it is otherwise uncovered. Of the Chaco tribes here mentioned, at least the Choroti, Mataco and Ashluslay occasionally have fringed leather girdles covering the privy parts.

The Choroti and the Ashluslay (Fig. 31 b) sometimes wear a leather girdle round the chest.

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1) Outes and Bruch (5), fig. 98.
2) Dobrizhoffer, Vol. 2, p. 129.
3) Bolinder (4) p. 60.
4) Pleyte, p. 245.
5) Hawtrey, p. 283.
6) Outes and Bruch (5) p. 95.
7) Uhle (1) Vol. 2, Pl. 11—12.

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The leather girdle has, as is natural, a southern distribution. Thus, we find it among the Lengua[1]).

The Choroti, Mataco and Ashluslay men always have a little bag, in which they carry their pipe, tobacco, small tools, trinkets, etc. This custom is to be found among many tribes throughout S. America, though by no means among all.

Other tribes, again, though they have little bags of different kinds, do not always carry them, as the Choroti, Mataco and Ashluslay do, for which reason I assume that this custom, too, reached the Chaco under the cultural influence of the tribes in the Andes.

Of the following tribes whom I visited on my travels, the men always carry a little bag: Ashluslay, Aymara, Chimane, Choroti, Mataco, Quichua, Tapiete and Toba.

The Choroti and the Ashluslay have several forms of bags. As a rule these are made of caraguatá. The bags of the Choroti are occasionally made of wool.

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[1]) Hawtrey, p. 282.

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XVII.

Objects for deforming the Body.

The Chaco tribes here dealt with wear no labrets, do not bore through the nasal septum, do not deform the head, and do not strap their calves in an unnatural way. The (1) Choroti, (2) Ashluslay and some (9C) Mataco Indians (Mataco-Guisnay), however, bore the flap of the ear, all the men, and some of the women, wearing blocks of wood or pieces of cane in, it so that the flap surrounds the objects like the tyre of a bicycle wheel.

Ear appendages (Map 18) of the kind here in question are not worn by any other Indian tribe I visited. Some of the Toba (X 8) wear them, but I did not visit this section. Several of the tribes known to me, however, wear rings, small blocks of wood or teeth etc. in their ears.

The custom of forcing the flap of the ear round a block of wood or the like, was universal in old (18) Peru[1]). The Indian chiefs in the Inca kingdom, who wore these ear-blocks, were called «orejones» by the Spaniards. Numerous ear appendages of this kind[2]), as well as earthenware vessels with figures of Indians thus adorned[3]), have been found on the Peruvian coast (A, K). For the rest, they are found in Brazil among the Botocudo (45)[4]), among the (67) Suyá[5]),-

[1]) Cobo, Vol. 4, p. 159.
[2]) Barbelen, Pl. 27, fig. 399—403; Reiss and Stübel, Vol. 3, Pl. 78.
[3]) Also in (J) Tiahuanaco. Posnansky.
[4]) Wied, Vol. 2, p. 5.
[5]) v. d. Steinen (2), p. 207.

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among (4 x) Gês-tribes in Maranhão[1]), among the (5 x) Canella[2]), (15) Kayapó[3]), (3 x) Miarigois[4]), (4 V) Garanhuns[5]), (0,3) Tapuya[6]), (5 V) Apinagês[7]), (6 V) Guaná[8]), (8) Lengua[9]), in the extreme N. of Peru among the (7 V) Orejones[10]), Indians (X 9) on the upper R. Paraguay, Isla de los Orejones[11]), (61) Boro and others in the river basin of the R. Içá and R. Yapurá[12]), among the (7 V) Yamaco[13]) (7 V) Zamco y Masamac[14]), (8 V) Curuzirari[15]), (9 V) Aroaqui[16]), (IX) Cavére, Maipure and Avane on the R. Orinoco[17]), (2 X) Guamo[18]), (48) Uitóto[19]), and (48) Kauyári on the middle Apaporis[20]).

This ear appendage has, in fact, a most curious distribution. We find it among the cultured Indians of western S. America, in the Chaco, and among the Gês-people. It belongs to the not very restricted number of cultural elements which the mountain culture, the Chaco tribes, and the primitive Gês-people have in common. The custom of fastening blocks of wood in the ears, still occurs to-day on some of the north-western tributaries of the Amazon. It was once widely extended in this part of S. America.

1) Ribeiro, p. 192.
2) Kissenberth (1) p. 40.
3) Krause, p. 98.
4) Yves d'Evreux, p. 40.
5) Prov. Pernambuco, Martius, p. 349
6) Piso et Marcgray, p. 271.
7) Castelnau, Vol. p. 28.
8) Comings, p. 211.
9) Hawtrey, p. 283; Azara (2), p. 300.
10) Osculati, p. 211; Raimondi, p. 605; Poeppig, Vol. 2, p. 415.
11) Nuñez Cabeza de Vaca, Vol. 1, p. 289.
12) Whiffen, p. 83.
13) Veigl, p. 72.
14) Chantre y Herrera, p. 69.
15) Acuña, p. 104.
16) Martius, p. 680.
17) Gumilla, Vol. 1, p. 142; Gilij, Vol. 2, p. 53.
18) Gumilla Vol. 1, p. 143.
19) Koch-Grünberg (2) Vol. 2, p. 302.
20) Ibid.

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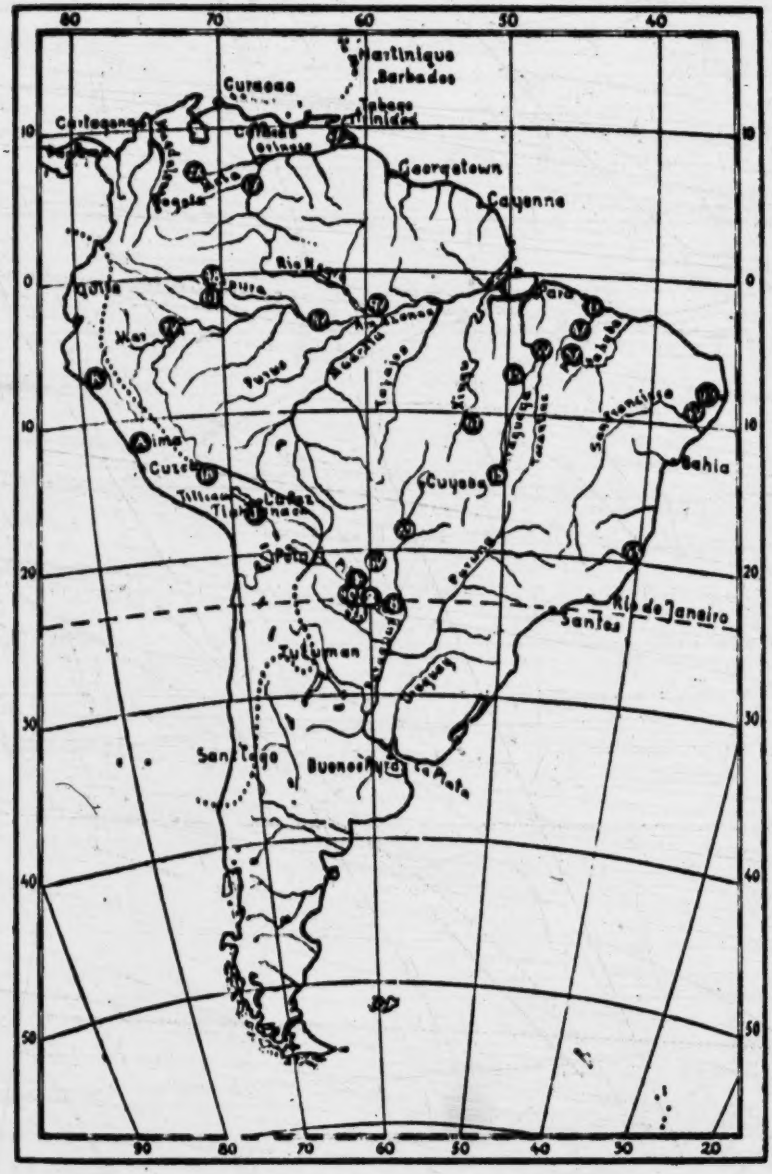

Map 18. Distribution of the Ear Blocks.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XVIII.

Tattooing (Map 19).

A C 304

We distinguish between two kinds of tattooing, scar-tattooing and ordinary tattooing of incisions filled with colour.

It is only the latter kind that is practised in the Chaco.

In many parts of S. America the Indians paint their skins with the cauterising juice of the »Genipa» fruit.

This colour, which is bluish violet, lasts for several days, and it is probable that travellers have sometimes mistaken Genipa-painting for tattooing.

I have seen real tattooing among the (2) Ashluslay, (1) Choroti, (6) Mataco, (7) Toba[1]), (3) Tapiete and (4) Chiriguano[2]), i. e., wherever genipa is wanting.

In the whole of N.E. Bolivia and the adjoining districts of Peru and Brazil I have seen no tattooed Indians.

As far as I know, painting the face and body with genipa is practised by the Yuracáre, Huanyam, Pauserna, Cavina, Atsahuaca and Tuyoneiri. Among no tribe have I seen both real tattooing (puncture tattooing) and genipa painting.

PATER SCHMIDT[3]) speaks of tattooing among these tribes, in addition to those mentioned above: Indians on the Peruvian coast, (V 6) Caraques (Ecuador), (7 x) Cueva[4]), (8 x) Warrau (55) True Caribs, (48) Desana, (9 x) Passé

[1]) See also DUCCI, p. 10.
[2]) Very rarely.
[3]) p. 1084.
[4]) Wrongly marked on PATER SCHMIDTS map.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

(60) Apiacá, (20) Paressi, (56) Mundrucú, (13) Karajá, (85) Juri, (28) Kustenaú, (28) Bakaïrí[1]), (52) Mocovi, (82) Arawak (Dutch Guayana), (47) Arecuna, (40) Guarayú, (12) Mbayá[2]), Tapirapé[3]), and (44) Charrua.

BOGGIANI[4]) considers that the mummies found on the Peruvian coast, and which were held to be tattooed, are not tattooed but are painted with caustic genipa juice. UHLE, however, has informed me by letter that on the same coast he found implements that were undoubtedly used for tattooing. I can add the following: (1 A) Timbú[5]) (?), (3V.) Querandi[6]), (17) Abipone[7]), (2 A) Minuane[8]), (X 4) Payaguá[9]), (8) Lengua[10]) (mostly women), (38) Tupinambá and other Indians in Maranhão[11]), (38) Tupinambá[12]), (25) Mojo[13]), (3 A) Remo [14]), (4 A) Tanaré[15]), (86) Yagua[16]), (8 A) Mayoruna[17]), (1 B) Ticuna[18]), (61) Menimehe and Boro, R. Yapurá[19]), (5 A) Indians in Provincia de los Tisnados,

[1]) Only occasionally.

[2]) PATER SCHMIDT also gives the Kaduveo. This is the same tribe as the Mbayá. See also SÁNCHEZ LABRADOR, Vol. 1, p. 285 and COLINI, (1) p. 308.

[3]) Probably not tattooed.

[4]) BOGGIANI (3).

[5]) SCHMIDEL, p. 158.

[6]) Ibid, p. 163, Karendos—Querandi.

[7]) DOBRIZHOFFER, Vol. 2, p. 19.

[8]) AZARA (1), Vol. 2. p. 33.

[9]) RENGGER, p. 130; AZARA (1), Vol. 2, p. 128.

[10]) HAWTREY, p. 283.

[11]) YVES D'EVREUX, p. 44.

[12]) LERY, p. 103.

[13]) EDER, p. 216.

[14]) According to RAIMONDI, this is the only tribe on the R. Ucayali that tattooes. RAIMONDI, p. 608.

[15]) STRÖLMAN, p. 116. The men.

[16]) OSCULATI, p. 306.

[17]) VEIGL, p. 88; CHANTRE Y HERRERA, p. 65.

[18]) Ibid. p. 97.

[19]) WHIFFEN, p. 86—87.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6

Venezuela[1]), (31) Trio[2]), (6 A) several tribes near L. Maracaibo[3]), (7 A) Achagua on the R. Orinoco[4], (28) Mehinakú, Waurá and Yaulapiti, on the R. Xingú[5]), Ona[6]), (2 B) Ortanese[7]) and (3 B) Guaxarapo[8]) on the upper R. Paraguay, (X) Yuruna on the R. Xingú[9]), (5 B) Pariri[10]) between the R. Xingú and R. Araguaya, (21) Caingué[11]), (47) Patamona[12]), (47) Ackawoi[12]) (47) Macusi[12]) and Patagonians[13].

To judge from the distribution of tattooing, it does not seem to have reached the Chaco from the mountain culture, where it was probably not practised in Inca times. No writer speaks of it from the days of the conquest. It appears to belong to the cultural elements with a predominently northern and eastern distribution. Tattooing is not practised by the Gês-tribes, nor on the R. Purús, nor among the Jivaro.

Tattooing is of course one of those cultural elements that are quite independent of the natural conditions in which a tribe lives.

Tattooing is very widely diffused, and I assume that it could easily have originated in different places. KARL v. D. STEINEN has pointed out how easily a wound can be filled with soot and become a form of tattooing (see also COIAZZI, p. 43).

[1]) CAULIN, p. 150.
[2]) CREVAUX, p. 380. (Very rare).
[3]) OVIEDO Y VALDÉS, Vol. 3, p. 272, 275.
[4]) GUMILLA, Vol. 1, p. 145. CASSANI after BRINTON p. 280.
[5]) v. d. STEINEN (3), p. 180.
[6]) GALLARDO, p. 148; COIAZZI, p. 43.
[7]) NUÑEZ CABEZA de VACA. Vol. 1. p. 298. (16th. century)
[8]) Ibid. p. 270.
[9]) KLETKE, p. 590 (very rarely)
[10]) NIMUENDAJÚ-UNKEL, (1) p. 624.
[11]) AZARA (1), Vol. 2, p. 93.
[12]) THULIN, orally communicated.
[13]) MUSTERS, p. 177 (not on the map).

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

Map 19. The Distribution of Tattooing in Post-Columbian time.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XIX.

Trinkets and Knick-knacks.

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The Choroti and the Ashluslay make use of a number of trinkets[1]) of various kinds, made of feathers, shells, etc.

Snail shell beads, made of the shell of the Borus oblongus, are used in the Chaco for necklaces and other ornaments. I have seen these beads among the Choroti, Mataco, Ashluslay, Toba, Tapiete, Chiriguano, (rarely) and Huari; LERY[2]) SOARES DE SOUSA[3]) and STADEN[4]) mention them from the Tupinambá, HAWTREY[5]) from the Lengua, AZARA[6]) from the Payaguá, SÁNCHEZ-LABRADOR[7]) from the Mbayá, COMINGES[8]) from the Guaná, v. d. STEINEN[9]) from the Bakaïrí and the Nahuquá. MEDINA[10]) following NAJERA, relates that the Araucanians had them at first. CASTILLO[11]) mentions them from the Mojo GUMILLA[12]) from

1) I can only mention the most important here.
2) p. 99.
3) p. 284.
4) Vol. 2, p. (16).
5) p. 282.
6) (1), p. 137.
7) Vol. 1 p. 184.
8) p. 306.
9) (3) p. 184.
10) p. 171.
11) p. 325.
»Sartas de lentejuelas hechas de caracol blanco, mayores que las ordinarias en el cuello«.
12) Vol. 1. p. 141.

[text continues on p. 126]

Map 20. The Distribution of the Spangling with Snail-shell Beads.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

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the Indians on the R. Orinoco, BIET [1]) and BARRERE [2]) from the Galibi. [3])

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RIVET[4]) has published a résumé of the finds of these snail shell beads revealed by archaeological excavations in S. America. He mentions finds from a number of places in Columbia, Ecuador, Venezuela, Peru, Bolivia, Argentina and Chile. For the details I refer to his work.

To RIVET's resumé I can add Caipipendi, Bolivia, where I found innumerable snail shell beads in the graves.

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The Chaco Indians here dealt with, the Choroti and Ashluslay sometimes sew these beads onto material (Fig. 32) as *spangles* (Map 20). I have seen these spangles, moreover, among the Mataco and Toba but not among any other tribe visited by me.

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The same custom was known on the Coast (A) of Peru[5]). MEDINA[6]) following ERCILLA mentions it from the (10) Araucanians, CABRERA[7]) from the «Juries».

The (8) Lengua Indians also sew snail shell beads onto material.[8]) The (12) Mbayá seem to have done so to a still greater extent than is now customary in the Chaco[9]). Spangling probably reached the Chaco from the culture zone in the west.

Fig. 32. Piece of a frontlet with spangles of snail shell beads. Choroti. G. M. (D. 96) 1/2.

[1]) p. 353.

[2]) p. 194.

[3]) The résumé could be supplemented to a very great extent by going through the unpublished collections in the large museums. I therefore do not include a map of the geographical distribution of the snail beads.

[4]) (4), p. 259.

[5]) REISS AND STÜBEL, Vol. 3. Pl. 79.

[6]) p. 171.

[7]) p. 140.

[8]) GRUBB p. 70.

[9]) SÁNCHEZ LABRADOR, Vol. 1. p. 282.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

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These round beads are cleverly threaded (Fig. 33).

The Ashluslay and the Choroti also wear necklaces of square snail shell beads (Fig. 34) with two holes in each.

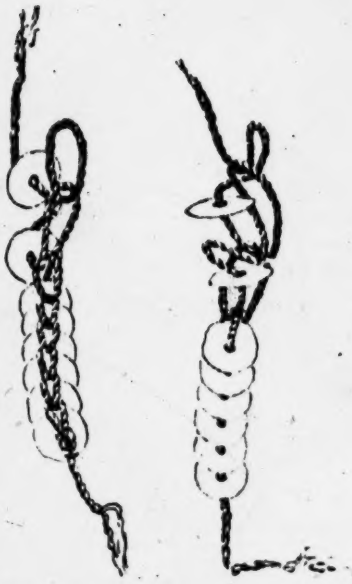

Fig. 33. Part of a necklace of snail shell beads. Choroti G. M. (D. 90) 1/1.

The snail shell bead necklaces are the kind most characteristic of the Indians here dealt with, but the Ashluslay and Choroti have quite a number of other necklaces, of seed grain, teeth, pieces of straw and leaves, glass beads, etc. Most Indians, save the Fuegians, probably also wear perforated teeth as ornaments. I have some in my collections from the Choroti, Ashluslay, Atsahuaca, Chacobo, Cháma. Guarayú (Pauserna), Huanyam, Huari, Mataco, Tambopata-Guarayo, Yamiaca and Yuracáre. Perforated teeth are here included among the cultural elements about whose origin I know nothing certain. The same is true of trinkets of seeds, pieces of straw, etc. At present the geographical distribution of these objects cannot be determined in a satisfactory manner. This is the more impossible without going through the unpublished collections of all the large museums.

Fig. 34. Piece of a necklace of snail shell beads. Choroti G. M. (D. 70) 1/1.

The Choroti and the Ashluslay Indians often wear a broad woven band tied round the head and ornamented, occasionally with fea-

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2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

A C 301

thers, not rarely with snail shell beads. The custom of wearing these *frontlets* undoubtedly derives from the mountain culture.[1]) (Map 21) In the Inca realm the frontlet was a token of honour.[2])

I have seen these frontlets among the (1) Choroti, (6) Mataco, (7) Toba, (3) Tapiete, (2) Ashluslay, (4) Chiriguano and (5) Chané, but among no Indians in N.E. Bolivia. The woven frontlet is, moreover, known from the (17) Abipone[3]) (26) Patagonians[4]) (10) Araucanians[5]) (8) Lengua[6]) (21) Cainguá[7]) and (6 V) Guaná[8]) Numerous frontlets have been found on the coast of Peru (A)[9]).

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Fig. 35. Hairnet. Ashluslay. G. M. (B. 94). 1/2.

The idea underlying the beautiful hair-nets decorated with snail shell beads (Fig. 35) which are sometimes seen among the Choroti and Ashluslay, probably also reached these Indians from the culture zone in the west, where they had hair-nets[10]) as well as the same

[1]) Cobo Vol. 4. p. 162; Uhle (2) p. 30.

[2]) Pelleschi compares the frontlets of the Chaco Indians with those that were used by the Incas. His explanation, however, of the occurrence of this cultural element in the Chaco, is not that the Indians in the Chaco learnt the use of the woven frontlet from the Incas, but runs as follows: »Now this custom must have pre-existed among some at least of the primitive peoples of the Empire, since we find it here in the Chaco, and we attribute to the Incas merely the law as to its use; their system being to regulate every person and everything by laws.« p. 24.

[3]) Dobrizhoffer, Vol. 2. p. 130.

[4]) Outes (3). p. 254; Falkner, p. 111.

[5]) Medina p. 168.

[6]) Grubb, p. 70.

[7]) Outes and Bruch (5) p. 94. fig. 77.

[8]) Comings, 306.

[9]) Reiss and Stübel, Vol. 3. Pl. 75.

[10]) G. M. (10. 9. 78); Reiss and Stübel, Vol. 3, Pl. 30 fig. 2, 9 and. 10.

[text continues on p. 130]

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

Map 21. The Distribution of the Woven Frontlet.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

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technique in knitting as is seen in the hairnets in the Chaco[1]) on the Peruvian coast. The Lengua Indians have very similar hair-nets to those of the Choroti and Ashluslay[2]).

RADIN[3]) mentions hair-nets like caps from the Suyá, Yuruna and Karajá. They are also found among the Mataco[4]).

The use of *tassels* (Fig. 36) on cords of various kinds is clearly a custom that came to the Chaco from the culture zone in the west. Within the area of my investigations I

Fig. 36. Hair-band with tassels. Ashluslay. R. M. (A. 5). 1/2.

Fig. 37. Hair-band with tassels. Quichua mestizos. Calilegua. N. Argentina. R. M. (n. 12). 1/2.

found these tassels among the Choroti, Ashluslay, Mataco, Toba, Chiriguano, Chané, Aymara and Quichua (Fig. 37) but among no tribe on the plain north of Sta. Cruz de la Sierra. Tassels are common on the textile fabrics found on the Peruvian coast[5]).

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[1]) G. M. (P. 1.)
[2]) HAWTHEY, p. 282.
[3]) p. 929.
[4]) R. M. (04. 4. 412), R. M. (04. 4. 413).
[5]) See, e. g. REISS and STÜBEL, Vol. 3. Pl. 75. fig. 4. 5. 9.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

Map 22. The Distribution of the Thread-cross.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

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The tassels of the Ashluslay, here depleted, are similar to those used on their head-bands by the Quichua mestizos in the Callegua Mountains of N. Argentina (Fig. 37).

The Choroti sometimes wear an ornament on the forehead[1]) in the form of a *thread-cross* (Fig. 38, Map 22).

The distribution of the thread-cross throughout the world has been studied by Foy. From S. America he gives: (55) Arawaks (Guayana), (13) Karajá (15) Kayapó, (14) Bororó, (75) Angaité, (1) Choroti, (6), Mataco-Vejos, (A) Peruvian coast and (T) Antióquia in Columbia.

It is notable that the thread-cross commonly occurs on the Peruvian coast together with the so-called mummy packets. It probably had a religious significance there.

I will return later on to the question of the origin in the Chaco of the thread-cross.

Fig. 38. Thread-cross, frontlet. Choroti, G. M. (D. 143). 1/4.

The young men of the Choroti and Ashluslay use *plumes*, of course. Feathers are sometimes sewn to the frontlet. Ostrich feathers, with cuttings in them, are often sewn into the frontlet. SÁNCHEZ LABRADOR[2]) speaks of them among the Mbayá. Round the instep and the upper arm the young men often wear plumes.

Plumes round the feet are very characteristic of the Indians in the Gran Chaco. Among others, HAWTREY[3]) mentions them from the Lengua, and DUCCI[4]) from the Toba.

The Ashluslay and the Choroti often wear a »brush» of hair or feathers stuck

[1]) The thread-cross was possibly not only an adornment among the Choroti, but also an amulet. However, as I heard nothing from the Indians to that effect, and as they have no compunction in selling thread-crosses, I look upon the thread-cross for the present as an ornament.

[2]) Vol. 1. p. 214.

[3]) p. 283.

[4]) p. 10.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

in the frontlet. Similar adornments are customary among the Lengua[1]). I have not seen this species of adornment outside the Chaco.

The plumes seen in the Chaco differ considerably from those seen among the Indian tribes in N.E. Bolivia. Here we almost entirely miss the use of parrots feathers, and yet there are very gay-coloured little parrots in the Chaco. Ostrich feathers are chiefly used. As basket-weaving is unknown, the feathers are never mounted, as so often in Brazil, on woven basket-frames. But, on the other hand, it is customary, as we have observed, to fasten the feathers onto some material, a custom I never observed among the Indians of N.E. Bolivia.

The custom of fastening feathers onto material, appears to me to have originated in the mountain culture.

A common material for making ornaments in the Chaco, is hide and leather. In my collections from the Choroti and the Ashluslay, there are foot-ligaments, wristlets and armlets of leather, and caps and frontlets of hide, particularly jaguar skin. The leather armlets, as also often other adornments, such as the ear-blocks, are covered with pieces of tinplate.

SÁNCHEZ LABRADOR[2]) is of the opinion that this custom derives from Peru. The assertion is of interest, as this is the first time, as far as I know, that anyone has adduced ethnographical proofs of Inca influence in the Chaco.

Few adornments are worn by the women in the Chaco. The Ashluslay women have armlets of strips of deer-skin. DUCCI[3]) speaks of these from the Toba, and, according to him, they are worn as amulets against lightning. I have not seen them elsewhere. The women occasionally wear necklaces of seed-grains.

Both men and women wear *rings*, which consist of seg-

[1]) HAWTREY, p. 282.
[2]) Vol. 2. p. 280.
[3]) p. 10.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

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ments of the skin of lizard's tail. I have not seen such rings outside the Chaco. From books I only know them from the Karajá[1]) and the Šavajé[2]). I have not attempted to determine their geographical distribution. As in similar cases, this can only be done by working through the collections of all the large ethnographical museums. Few writers of books give any particulars about such unimportant objects.

[1]) KRAUSE, p. 249
[2]) ibid. p. 358.

Map 23. Distribution of the Hairbrush.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XX.

Toilet articles.

A C 302

The Indians here dealt with are acquainted with the use of comb and brush. The use of the comb in S. America is very widespread; that of the hairbrush is much less so.

A C [237]

Fig. 39. Hairbrush. Ashluslay, G. M. (A 701) 1/2.

I have in my collection *hairbrushes* (Fig. 39. Map 23) from the (6) Mataco, (1) Choroti, (2) Ashluslay and (3) Tapiete. They are, moreover, known among the (10) Araucanians[1]), (26) Patagonians[2]), (66) Peguenche[3]) and (X 5) Yahgan[4]).

LEHMANN-NITSCHE[5]) gives a drawing of an object from an excavation in the (D) Puna de Jujuy which probably depicts a hairbrush. The hairbrushes of the Choroti, Ashluslay and Mataco are made of ant-bear hair. The Tapiete Indians use brushes made sometimes of hair, sometimes of roots. Otherwise they are made of twigs or roots.

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[1]) UHLE (6). p. 13.

[2]) OUTES and BRUCH (5), p. 122, fig. 118.

[3]) LUIS DE LA CRUZ, p. 35: »Y advierto que sus peines es un manojo de boquis ó raicesillas delgadas de que nosotros usamos para barrer las casas.»

[4]) OUTES and BRUCH (5), p. 138, fig. 140.

[5]) (1), Pl. 4, F. 6.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK 5

It is an interesting fact that UHLE[1]) has found these hair-brushes in the very old excavations at (B) Arica. He has also discovered them in the oldest excavations at (h) Pisagua, while in the younger strata there, which he assigns to the time of the Tiahuanaco, he found combs. The hair-brush is evidently a very old mark of civilization in S. America, now spread more especially in the south.

LUIS DE LA CRUZ[2]) says that the Pegueneche have no knowledge of combs. Nor have the Tehueleche any combs. On the other hand, among the above-mentioned tribes of the Chaco, the comb is used along with the hair-brush. The rest of the Indian tribes visited by me, with the exception of the Cháma, the Tambopata-Guarayo and the Huari, all had combs. PATER SCHMIDT[3]) has endeavoured to determine the area over which various types of comb are spread. He only concerns himself with what he calls «stick-combs», i. e., combs made of a number of sticks bound together. In the Chaco there is yet another kind of comb, consisting of a flat piece of wood out of which the teeth of the comb are carved. Various forms of these «stick-combs» are found spread over the larger part of S. America. I take the liberty of making this reference to PATER SCHMIDT's classification, though I do not understand his division into various types. I will only point out here that the «stick-combs» used by the Choroti and the Ashluslay in their shape and manner of splicing, (Fig. 41) are, as a rule, identical with those found by LEHMANN-NITSCHE[4]) in the Puna de

[1]) «*El peine* por ejemplo, tiene la forma de escoba que es la primitiva americana, y que ahora está sólo en uso entre los Patagones, Araucanos y en una parte de Méjico, según sabemos. Con la misma forma aparece en las sepulturas más antiguas de Pisagua En el periodo de Tiahuanaco, aparecen primero los peines con dientes, tanto en Pisagua como en todo el Perú, teniendo los peines conocidos de las tribus transandinas del Este y Norte la misma forma.» UHLE (o) p. 13.

[2]) p. 35.

[3]) p. 1084.

[4]) (1), Pl. 4, fig. F. 7 and fig. G. 5.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

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Jujuy, by BOMAN[1]) in Calama in Atacama, and by myself[2]) in the Ollachea a valley in Peru. On account of the great similarity between the combs found at the archaeological excavations within the civilized area of the west and the combs of the Choroti and the Ashluslay, it seems clear to me that this type of comb in the Chaco is derived from western civilization. Whence the Indians of the Chaco originally received the comb is, however, unknown to me. From PATER SCHMIDT's classification we see that the

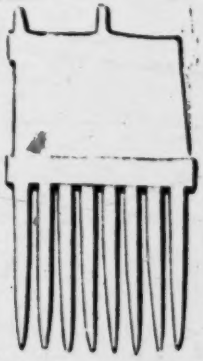

Fig. 40 A.
Wooden comb. Choroti.
(S. M. (D. 24) 1/2.

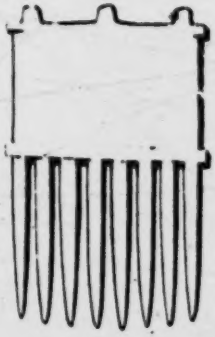

Fig. 40 B.
Wooden comb. Chiriguano. R. M. (E. 454) 1/2.

comb is lacking among most of the Gés-tribes. It occurs within the old area of civilization on the Andes and everywhere among the Caribs, Guaraní and Arawak tribes.

The wooden comb which, in contradistinction to the stick-comb, we may call the plain comb, has a rather limited area of occurrence. I have such combs in my collection from the Choroti, (Fig. 40 A) Chiriguano (Fig. 40 B), Chané, Mataco and Tapiete. DEBENEDETTI depicts such a comb[3]) found in an excavation at Humahuaca in the

[1]) Fig. 171 f.
[2]) (3) Pl. 3, fig. 4 and 9.
[3]) (2), fig. 180.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

A C 302

northernmost part of Argentina and another from Kipón[1]). UHLE shows a wooden comb of the European type from Cajamarca in Peru[2]). Among the Ashluslay I have not seen this type of comb. The combs found among the Choroti are exactly like those of the Chiriguano, wherefore it is probable that they received this type of comb in the first instance from those Indians. In origin it is probably derived from western civilization.

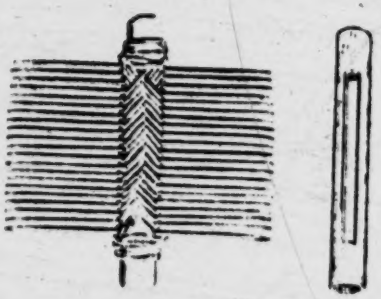

Fig. 41 a. Stick-comb. Ashluslay. R. M. (A. 602) 1/2. b. Back.

The stamps (Fig. 42) which the Indians employ in painting themselves also belong to the toilet articles of the Chaco country. These are sticks or flat pieces of wood with notched or lined carvings.

The ornamentation of these stamps is smeared with paint, whereupon the stamp is pressed against the skin. My collections contain stamps of this kind from the (1) Choroti and (2) Ashluslay for painting the face, and from the (22) Yuracáre for painting the face and clothes. Outside the Chaco stamps appear to be most spread in the north-west of S. America. In some districts they are made of burnt clay. We find them among the Indians of N. W. Brazil (48)[3]), among the (12)

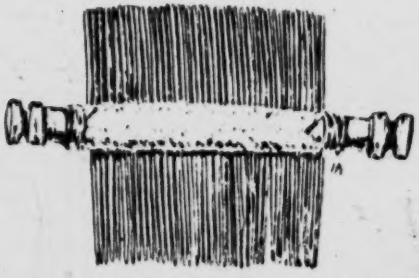

Fig. 41 b. Stick-comb. Ashluslay. R. M. (A. 660) 1/2.

[1]) (1), fig. 10.
[2]) (1), Vol. 2, Pl. 17, fig. 8.
[3]) KOCH-GRÜNBERG, Vol. 1, p. 176 and p. 249.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

Fig. 42. Stamps used for the painting of the face. Ashluslay. R. M. (A. 1074, 1078) 1/2.

Mbayá [1]), (34), Jivaro [2]), (74) the Indians of the Orinoco [3]), (X 3) Piaroa [4]), (54) Guahibo [5]) (13) Karajá [6]), (15), Kayapó [7]), (8) Lengua [8]), (V5) Yekuaná [9]), (46) Conibo [10]) (71) Sipibo [10]), and (2 D) Setebo [10]).

During archaeological excavations in Columbia they have been found at Ubaté, Cundinamarca, Fresno, Tolima, (W) Guasca, Cundinamarca, (T) Manizales, Antióquia, Pereira near Cartago Viejo and Cauca [11]). All these are of burnt clay.

SAVILLE [12]) found numerous stamps of burnt clay at (I) Manabi on the coast of Ecuador. They are also known from the island af Trinidad [13]).

From the vicinity of the old area of civilization in the west adjacent to the Chaco country, I know none of these stamps. At present I must leave the question open whence the Indians of the Chaco have received these elements of civilization.

1) SANCHEZ LABRADOR, Vol. 1, p. 285. «El modo con que forman dichas figuras tiene algo de ingenio. De piel hacen los moldes sacándole los cortes y rayos que ha de llenar el color blanco, materia de la estrella. Cuando quieren parecer estrellados, arriman los moldes al cuerpo, ya pintado de encarnado ó negro»; COLINI (1), p. 309.

2) RIVET (1), p. 28.

3) GILIJ, Bd. 2, p. 58.

4) MARCANO, Pl. 30.

5) R. M. (H. M. K. H. 12)

6) KRAUSE, p. 218.

7) » p. 380.

8) M. f. V. B. (V. C. 520).

9) M. f. V. B. (V. A. 6101).

10) COLINI (2), p. 533.

11) UHLE (1), Vol. 1, Pl. 3, Fig. 14-25. See also FABREGA p. 318.

12) Vol. I, p. 76; Vol. 2, p. 198.

13) FEWKES p. (not marked on the map.)

Map 24. Areas wherein Stamps used for the painting of Face and Clothes occur.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6

415
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43.

Fig 13 Earthenware vessels from Pachacamac, Peru.
Fig 14 copacabana Indian.
Fig 15 Choroti woman.

44.

45.

[p. 142]

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashlusley SK5

XXI.

Carrying-utensils.

A
C
482
[462]

In the Chaco all heavy loads are carried by women. Like all South American Indians they carry heavy weights on the back and never on the head. The load is fastened by means of a band around the forehead. (Fig. 45)[1]). This is the one method of carrying known in S. America. The other is to fasten the load across the shoulders and round the chest. (Figs. 43 and 44). The pressure on the chest is generally equalized by holding with one hand the rope tied across the chest.

The Chaco tribes with whom we are here concerned bear their burdens in nets, never making use of baskets. In the accompanying table is indicated, by way of comparison, how the different tribes whom I got to know on my journeys bear their burdens.

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On an examination of the literature dealing with the bearing of heavy loads by various Indian tribes we find that, in the greater part of S. America, the method is for the burden to rest upon the back, and to be fastened around the forehead. Only in the western and southernmost parts of S. America do the Indians carry heavy burdens in such wise that the burden rests on the back and is then fastened around the shoulders and chest, as e. g. among the

[1]) Sometimes the bearer, in addition to the brow-bands, has also bands across the shoulders. I have never seen these, however, in the Chaco, and elsewhere only among Indians serving white men as bearers.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

Ona[2]), Quichua[3],)[4], Atsahuaca, Paez[5]),and the civilized Indians of Colombia[6]). To anyone studying the form of the cranium

	Number on map	Burden carried on the back with a band over the forehead.	Burden carried on the back and fixed on the shoulders and chest	In a poncho or the like.	Carrying-net.	Basket.	Both men and women bear burdens.	Burdens borne chiefly by women.	Children carried by means of bearing-bands.
Ashluslay	2								
Atsahuaca	32			[1]		?			
Aymara	10								
Chacobo	62								
Chámna	73								
Chané	5								
Chimane	24								
Chiriguano	4		?						
Choroti	1								
Guarayú (Guarayos)	40								
Guarayú (Pauserna)	41								
Huanyam	43								
Huarí	64								
Matanco	6								
Quichua	18	—			+	+			
Tambopata-Guarayo	6X				—	+		?	
Tapiete	3								—
Toba	7		—		+	—	—		—
Yamiaca	63				—	?		?	—
Yuracáre	22			—	+	—	—	+	

of the various Indian tribes, it will probably be of some interest to learn that there are in S. America two methods of carrying burdens so unlike each other, and having such dissimilar geographical extension.

The carrying-net (Map 25) is found in the western and southern parts of S. America. From all appearances it belongs to an older period of civilization than the carrying-basket,

[1]) In holders made of bark.
[2]) GALLARDO, p. 285.
[3]) WHYMPER, p. 169.
[4]) FERRIS, numerous illustrations.
[5]) PITTIER DE PÁBREGA, Pl. 4.
[6]) REGEL, Pl. 24, fig. 21.

Map. 25. The Distribution of the Carrying-net.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

since it is used by most of the Gês-tribes who live in tracts where there is abundance of material for basket-making. The supposition that the use of carrying-nets among these tribes is due to the difficulty of finding suitable wicker is thus precluded.

The carrying-net is in use among the following tribes as well as those indicated in the table on p. 144: (45) Botokuds[1]), (27) Ona[2]), (67) Suya[3]), (28) Bakaïrí[4]), (28) Mehinakú[4]), and (28) Auetö[4]), (11) Chamacoco[4]), (8) Lengua[5]), (12) Mbayá[6]), (36), Ijca[7]), (10) Araucanians[8]), and (03) Tapuya[9]). The (13) Diaguita[10]) seem formerly to have made use of carrying-nets; Uhle[11]) found carrying-nets in the very old excavations at (B) Arica.

In all probability various nets found on the coast of (A) Peru are also carrying-nets. In the Linden Museum at Stuttgart there are nets of this kind from Valle de Chancay. One of these, made of fine string, is 125 centimetres long and 30 centimetres broad (when stretched)[12]).

A C 482 [415]

The waterpots are borne by the Choroti, Ashluslay, Mataco, Toba[13]), Tapiete, Lengua[14]), and Mbayá[15]) in the Chaco in a very characteristic manner (Fig. 45). Around the pitcher, which is indented at the middle and has two ears, there runs a cord. This is fixed by the woman who carries the pitcher

[1]) v. Ihering (2), Pl. 4, Fig. 7. Wied, Vol. I, Pl. 14.
[2]) Gallardo, p. 285 Very simple form.
[3]) v. d. Steinen (1), p. 194.
[4]) Radin, p. 928.
[5]) Grubb, p. 95.
[6]) Sánchez Labrador Vol. I, p. 271.
[7]) G. M. Bolinder.
[8]) Mason, p. 535.
[9]) Frescarolo, p. 114.
[10]) Ambrosetti (2), p. 449; Quiroga, fig. 7.
[11]) (7), p. 30.
[12]) According to letter received from Koch-Grünberg.
[13]) Also the Toba on the lower Rio Pilcomayo. Ducci, p. 8.
[14]) Grubb, Fig. p. 99.
[15]) Sánchez Labrador, Vol. I, p. 291.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

around the forehead in the same manner as when other heavy burdens are carried. While being carried the pitcher hangs on the back. No other Indians in S. America, except the Quichua (Fig. 44)[1]) and possibly the Aymara, carry their pitchers in this manner on a cord passing through the two ears of the vessel. It reminds one not a little of the method prevailing among the Incas of carrying the «Aryballes» (see Fig. 43) so characteristic of the Inca period, and it ap-

Fig. 46. Clay doll. Indian woman with bearingband. Choroti. R. M. (D. 346) 2/3. A = tattooing.

pears to me by no means improbable that the water-pitcher now used in the Chaco is a development of the aforementioned Incan type on which was also carried a rope. It is evident that the idea of carrying earthenware vessels on a rope, as well as the ears of the vessels (see page 212) is derived from the Western area of civilization. «Aryballes» are found in North Chile, in N. W. Argentine, on the Bolivian tableland, in the mountains and on the coast of Peru, and in the mountains and on the south coast of Ecuador. This type of vessel is considered by BOMAN and UHLE, no doubt

[1]) WIENER, p. 128.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

correctly, to be Incan, and may, indeed, be looked upon as a «clue-fossil» showing the extension of the Incan civilization[1]).

The women carry their children sitting on the hips or, sometimes, on a bearing-band. (Fig. 46). Such bearing-bands are found mostly in the eastern and northern parts of S. America. (Map 26).

I have seen them not only among the (1) Choroti but also among the (6) Mataco, (41) Guarayú (Pauserna), (40) Guarayú (Guarayos), (43) Huanyam, (24) Chimane, (32) Atsahuaca, (6 X) Tambopata-Guarayo, (3) Tapiete and (22) Yuracáre. They are not found among the Aymara, Quichua, Chiriguano, Chané and Cháma. Nor have I found bearing-bands in use among the Ashluslay and the Toba.

In the literature dealing with this subject such bearing-bands are mentioned as being in use among the following tribes: (45) Botokuds[2]), (07) Purí[3]), (15) Kayapó[4]), (38) Tupinambá[5]), (21) Coroados (Caingué)[6]), (4 C) Guajajara[7]), (4 X) Gês-tribes, Maranhão[8]), (4 X) Tajé[9]), (20), Paressi-Kabiši[10]), (31) Chipaya and Curuahé[11]), (34) Jivaro[12]), (42) Caripuna[13]), (59) Criehana[14]), (46) Conibo[15]), (48), Kobéua[16]), (31) Ojana[17]),

[1]) See UHLE (2), p. 17; BOMAN, p. 295 and JIJÓN Y CAAMAÑO, p. 154.
[2]) v. IHERING (2). Pl. 5, fig. 8.
[3]) WIED, Vol. I, p. 130.
[4]) KRAUSE, p. 393 and 394, Pl. 25.
[5]) STADEN. Vol. 2, (p. 18.); PISO ET MARCGRAV, p. 274.
[6]) KÖNIGSWALD, fig. 33, p. 31.
[7]) PLAGGE, p. 206.
[8]) RIBEIRO, p. 188.
[9]) NIMUENDAJÚ-UNKEL (2), p. 620.
[10]) MAX SCHMIDT (4), fig. 30.
[11]) SNETHLAGE, Pl. II.
[12]) FESTA, Pl. foll. p. 194.
[13]) KELLER-LEUZINGER, p. 105.
[14]) BARBOSA RODRIGUES, p. 165.
[15]) SALA, fig. p. 78.
[16]) KOCH-GRÜNBERG, (2) Vol. 2, p. 147.
[17]) GORJE (1), Pl. 7, fig. 19.

Map 26. Areas where Infant Bearing-bands occur.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6

(98), Ararandeúara[1]), (47) the tribes of the Roraima district[2]) (99) Provinz Piritú, Venezuela[3]), (5 C) Nambiquara[4]), as also (60) the Apiacá[5]), (Rio Tapajos), (67) Suyá[6]),(14) Bororó[7]) (36) Ijca and Köggaba[8]) and Chimila[8]). These bearing-bands are wanting among the Karajá[9]).

[1]) Lange, Pl. foll. S. 215. (Temblé.)
[2]) G. M. Phot. Koch-Grünberg.
[3]) Ruiz Blanco, p. 57.
[4]) Roquette Pinto (2), p. 169.
[5]) Coudreau, p. 67.
[6]) K. v. d. Steinen, (2), p. 204.
[7]) » (3).
[8]) Bolinder (4), p. 67 and p. 148.
[9]) Krause.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

XXII.

Holders for Various Articles.

On entering a Choroti or Ashluslay hut, one finds lying on the floor, or else hanging in the hut, large and small bags knitted of Caraguatá. In these bags which, as has been mentioned, are used on journeys for carrying articles in, these Indians keep their goods and chattels. Besides these bags they have also pouches of ostrich-skin, wild pig-skin, and ostrich-necks. Small articles are usually kept in small pouches and bags placed inside larger ones for preservation. Ornamental feathers are usually kept by these Indians in sections of reeds.

The Mataco, Toba, and Tapiete Indians preserve their property in like manner. All is preserved in such wise that it can be collected in a short time when they desire to set out on a journey or escape with all their goods and chattles.

As most writers say nothing as to how the Indians preserve their private property, I will here content myself with drawing a comparison between the tribes I have got to know personally. The following tables indicate the commonest manner of preservation.

Ashluslay. — Caraguatá bags, pouches of leather, sections of reeds.

Atsahuaca. — Baskets.

Aymara. — Sacks and satchels of cloth, niches in the hut, storehouses.

Cavina. — Baskets, satchels of bought cloth, storehouses.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6

000 Chacobo. — Baskets, storehouses.

Cháma. — Baskets.

Chané. — Earthenware vessels, hooks in the ceiling, storehouses.

Chimane. — Baskets, shelves, cloth bags.

Chiriguano. — Earthenware vessels, hanging on the roof of the hut, hooks in the ceiling, storehouses.

[415] Choroti. — Caraguatá bags, pouches of leather, sections of reeds.

Guarayú (Pauserna). — Baskets, in leaves.

Huanyam. — Baskets, leathern bags, bast holders.

Huari. — Hanging in the hut, stuck into the walls of the hut.

Mataco. — Caraguatá bags, shelves, leather pouches, sections of reeds, storehouses.

Quichua. — Sacks and pouches of cloth, niches in the hut, storehouses.

Siriono. — Baskets.

Tambopata-Guarayo. — Baskets.

Tapiete. — Caraguatá bags, leather pouches, sections of reeds.

Toba. — Caraguatá bags, leather pouches, sections of reeds

Tsirákua. — Caraguatá bags, leather pouches, sections of reeds.

Yamiaca. — Baskets.

Yuracáre. — Baskets, pouches of bast, and bought cloth.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

XXIII.

Games and Playthings.

A C 524

Two kinds of games can be distinguished among the Chaco Indians, viz. games of chance and games of skill. The area of occurrence of the former shows that they have come to the Choroti and the Ashluslay from the civilized area in the west. Games of chance in S. America have consequently an evident westerly extension. (Map 27). They are mentioned by GARCILASSO DE LA VEGA[1]) and by COBO[2]) with regard to the Incas, by MEDINA and MANQUILEF and others as to the Araucanians in Chili, and by LUIS DE LA CRUZ as to the Peguenche in Argentina. During my travels in the Chaco I have seen games of chance among several tribes mentioned below. HAWTREY mentions games of chance among the (8) Lengua and DUCCI among the (9) Toba de Taccagalé.

C 524

The (1) Choroti as a rule play games of chance in the following way. First they make a Counting-board on the floor, i. e., they make a row of shallow holes. (Fig. 47).

Holes 1 and 21 are the »homes» of the opponents. In each of these holes a peg or an arrow[3]) is stuck at the beginning of the game. In 2—10 and 10—20 smaller pegs are

[1]) Libro II, Cap. XIIII, p. 40.
[2]) Vol. 4, p. 228.
[3]) See ERIC VON RÖSEN (I) Pl. 17, 1.

[text continues on p. 155]

Map. 27. Distribution of Games of Chance.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

stuck, usually called «sheep»; 11 is empty and is called the lake or the river[1]). 524

Two, four or more persons can play. For dice they have four pieces of wood which are convex on one side and, on the other, flat or concave. The convex sides are often ornamented.

Fig. 47. Counting-board of the Choroti.

The players take two wooden dice in each hand and throw them against each other so that they fall on the floor. The points are reckoned thus: —

4	convex	sides	up	counts	4
3	»	»	»	»	0
2	»	»	»	»	1
1	»	side	»	»	0
0	»	»	»	»	2

Thus, if A begins and throws 2, he puts his arrow in 3; should he thereupon throw 1, he puts it into 4, etc. A plays until he throws 0, when B begins and plays until he throws 0. When A gets over 11 and B under 11, they knock out the pegs from the holes to which they come. The aim is to be first to knock out all the pegs on the side of one's opponent. Play is always from one side to the other, turning at the «homes». When a player catches the marker of his opponent, the latter is knocked out and must begin again, not, however, from his «home» but in the hole nearest to the home where he has a peg. This is knocked out. When all the pegs of one's opponent are knocked out, the opponent's

[1]) These explanations I have received in Spanish. The Chané and the Chiriguano call 1 and 21 «O» «home» and 11 they call «O» water. The Tapiete do the same.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

C 524 marker has to be knocked out. Having done that, one has won the game. Should anyone while playing reach 11, i. e. fall into the water and not succeed in getting away at the next throw, but throw 0, he must return to the hole in which he still has a peg nearest to »home». Should only the two markers be left, and one fall into the water, the player not succeeding in getting away at the next throw, but throwing 0, the game is then drawn.

C A 524 With small variations the Ashluslay, (6) Mataco, (7) Toba, (3) Tapiete, (4) Chiriguano, and (5) Chané play in a similar manner. The number of »sheep» a player has varies somewhat in different tracts but his opponents have, of course, always the same number. Only among the Choroti and the Ashluslay is the lake or river duplicate. The reason is unknown to me.

880 The Chané Indians call this game »Chunquánti». Cobo[1]) writes that the Indians of Peru have a game which they call »Chuncara». In this game they made use of a flat stone or a piece of wood in which five holes were hollowed out. Beans of different colours served as markers. A die was cast, and according to the result of the cast, the player proceeded in the holes until the end was reached. The first »home» counted ten, the second twenty, and so on till fifty.

GARCILASSO DE LE VEGA[2]) says that the Incas called the players »Chunca Camayu» and all games »Chunca» ten. This was because they always counted in tens in their games.

»We play», in their language, was »Chuncasum» which means literally »we reckon in tens». It is evident that the

[1]) Vol. 4, p. 128: »*Chuncara* era otro juego de cinco hoyos pequeños cavados en alguna piedra llana o en tabla: jugábanlo con frisoles de varios colores, echando el dado, y como caía la suerte, los mudaban por sus casas hasta llegar al término: la primera casa valía diez, y las otras iban creciendo un denario hasta la quinta, que valía cincuenta.»

[2]) GÓMARA says, p. 278, of the Inca: »Juegan con un solo dado de cinco puntos, que no tienen mayor suerte.»

[3]) Libro II, Cap. XIIII, p. 40.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

Chané have received the name Chunquánti from the Quichua language. The Choroti word for game, «tsúka», and the Ashluslay name «tsukoc» are plainly derived from Chunca.

Just as in Sweden backgammon players, in counting, use words derived from the French language, e. g. «tres ess, cinca dus, troya-dus», etc., the Indians of the Gran Chaco employ words for reckoning derived from the Quichua language. When the Ashluslay and Choroti make a cast counting four points, they say «tauva» which, in the Quichua tongue, signifies four. When reckoning in other connections the Ashluslay say «it-chat-cúch» for four and the Choroti «inulitse» or «inujlitsi». When the Ashluslay throw three points they say «chimí». Three, in the Quichua tongue, is «quimsa», in the Ashluslay «pú-shana». The Choroti, for the same throw, only mark two, and say «kiñá». Otherwise they say for two «ti-mes» and for three «nahape». For one point the Choroti say «tsúka» and the Ashluslay «tsuká» which is also the first name for the game. «Chunca» signifies ten in the Quichua tongue and we recollect that, according to GARCILASSO, the Incas in their games always reckoned in tens.

This circumstance, that the game of chance in question has in the Chaco a name derived from the Quichua language and there used for «game» generally, and the fact that, in the Chaco, Quichua expressions are made use of in games *show that the Tsúka or Chunquánti game derived originally from the area of civilization in the west.*

As I have already pointed out in an article in the Zeitschrift für Ethnologie in 1910, there is a remarkable similarity betwen the Tsúka or Chunquánti game and certain North American games described by CULIN. It would appear from this that these games or, at least, similar games belong to a very ancient layer of civilization in America.

In another article in the above mentioned magazine I have recently endeavoured to prove that some peculiar objects found in Peru and Ecuador, and described at length by

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

000 RIVET and VERNEAU[1]), have been employed in games of chance similar to others now played by the Choroti and other Indians in the Chaco. The places where these objects were found are indicated in the map showing the distribution of games of chance. (A. K. L.)

A C 526 In the Chaco, among the tribes here dealt with, I have only seen one game of skill, viz. a *ball game with a bat*. (Map. 28). Such ball games I have found besides among the (1) Choroti, (6) Mataco and (2) Ashluslay[2]), among the (4) Chiriguano (7) Toba, and (3) Tapiete. Formerly this game was probably played by the Churápa Indians too. These ball-games are best known from the (10) Araucanians. When the first Conquistadors came to the Araucanians, they saw them playing at ball with wooden bats[3]). To this day it is the national sport of these Indians[4]). SÁNCHEZ LABRADOR[5]) mentions this game from the (12) Mbayá, HAWTREY[6]) from the (8) Lengua, BOGGIANI[7]) from the (11) Chamacoco, and DUCCI[8]) from the (9) Toba on the lower Rio Pilcomayo. This kind of ball game, as we see, occurs chiefly in the southern part of S. America. Nevertheless I do not consider it incredible that originally it came to the Indians of the Chaco, and to the Araucanians, from the mountain area of civilization.

[1]) (4), p. 244. See NORDENSKIÖLD (10).
[2]) See »Indianerleben». Page 71.
[3]) LENZ, p. 322. After LOVERA, p. 138.
[4]) See EULOJIO ROBLES RODRIGUEZ.
[5]) Vol. 3, p. 12.
[6]) p. 207.
[7]) (1), p. 61, Fig. 35.
[8]) p. 7.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

Map. 28. The Distribution of Bat and Ball Games.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

Games with maize leaf balls which are struck with the hands (Map 29) have quite an different area of occurrence. Balls of this kind occur in the collection of ERIC V. ROSEN (R. M. 03.3. 199—201) from the Choroti. I have seen balls of this kind among the (4) Chiriguano, (40) Guarayú, (23) Churápa, and (24) Chimane. K. v. d. STEINEN[1]) mentions them from the (28) Bakaïrí and (14) Bororó, KOCH-GRÜNBERG[2]) from the tribes on the Rio Caiarý and Rio Aiarý, ST. CRICQ[3]) from the (46) Conibo on the Rio Ucayali, SÁNCHEZ LABRADOR[4]) and BOGGIANI[5]) from the (12) Mbayá, KRAUSE[6]) from the (13) Karajá, HAWTREY[7]) from the (8) Lengua, IM THURN[8]) from the (47) Macusi, GILIJ[9]) from the (74) Tamanaco, and KOCH-GRÜNBERG[10]) from the (47) Roraima area as well as from southern (V 5) Venezuela.

Probably such balls are in vogue also among a number of other Indian tribes. It seems, however, that for the present, at least, they are to be reckoned among the elements of civilization occurring chiefly in the northern area.

Among the Choroti, Mataco, and Ashluslay there are some other playthings besides the above-mentioned. The playthings of Indian children have, however, been too little studied for us to be already able to determine the area of occurrence of the various playthings.

The Choroti, Ashluslay and probably also the Mataco make so-called *cats-cradles* I have also seen them among

[1]) (3), p. 329 and 496.
[2]) (2), Vol. 2, p. 126.
[3]) p. 289. »balle de feuilles de palmier» — *probably wrong; should be maize-leaf balls.*
[4]) Vol. 2, p. 18, Fig.
[5]) (2), Fig. 51.
[6]) p. 312.
[7]) p. 277.
[8]) p. 326.
[9]) Vol. 2 p. 267.
[10]) (3), p. 79, Fig. 8.

Map. 29. The Distribution of Games with Maize Leaf Balls.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

the Toba, Tapiete, Yuracáre and Cavina. HAWTREY[1]) mentions cats-cradles from the Lengua, DUCCI[2]) from the Toba on the lower Pilcomayo, KOCH-GRÜNBERG[3]) from N. W. Brazil, ROTH, LUTZ and KOCH-GRÜNBERG from Guiana, KISSENBERTH[4]) from the Tapirapé and EHRENREICH[5]) and KRAUSE[6]) from the Karajá.

This game is undoubtedly played by many other Indian tribes, though nothing is known about it. The game, which is played not only by children but also by adults, is one of the elements of civilization the distribution of which can only be determined after further exploration.

The same holds good of stilt-walking. I have seen it among the Ashluslay, and elsewhere only among the Cavina on the Rio Beni. Stilts are also mentioned by KOCH-GRÜNBERG[7]) from the Sisí in N. W. Brazil and by MANQUILEF[8]) from the Araucanians. The *bull-roarer* may also be included here. In S. America this is seldom anything but a plaything. I have in my collections, besides those from the tribes here dealt with, bull-roarers from the Chiriguano, Chané, Yuracáre, Guarayú (Mission), Chacobo, and Itonama. KARL V. D. STEINEN[9]) mentions the bull-roarer from the Bororó, Mehinakú, Nahuquá and Bakaïrí and EHRENREICH[10]) from the Ipurina.

The Choroti and Ashluslay have a kind of peculiar *dolls* (fig. 46) which I have described and illustrated in a special little article in the Ymer magazine and in my book »Indianerleben». Whence they got the idea of these dolls I will not venture to

[1]) p. 285.
[2]) p. 6.
[3]) (2), Vol. I, p. 120, 253 and Vol. 2, p. 197.
[4]) (2), p. 78.
[5]) (2), p. 30.
[6]) p. 312.
[7]) (2), Vol. I, p. 119.
[8]) p. 111. fig. 3.
[9]) (3), p. 327 and 498.
[10]) (2), p. 71.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

say. In addition to the above-mentioned tribes I have seen them among the Toba, Tapiete and Mataco. The Choroti dolls are remarkable for the face-tattooing being so accurately performed, though it is done on the body. Dolls made of the toe-joints of ostriches also occur among them. The Toba and, according to HAWTREY[1]), the Lengua also have dolls of this kind.

[1]) P. 297.

A C 524

A C 534

Fig. 48. Skin-drum stick [illegible]. 1/4.

2: Nordenskiöld E-5 (1908-1909)1919
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XXII.

Signals and Musical Instruments etc.

A c 534 Considering their primitive state the (1) Choroti and the (2) Ashluslay possess a good many musical and signalling instruments. They have several kinds of whistles, rattles, *skin-drums* (Map 30) trumpets, flutes and the musical bow.

The skin-drums which, among the tribes here mentioned generally consist of an earthen vessel half full of water, over which a skin is stretched, are probably one of the elements of civilization which have come to the Chaco Indians from the mountain area of civilization. Like (A)the Incas[1]), Indians of the Chaco never make use of more than one drumstick. 800 (Fig. 48). The skin-drum is one of the elements of civilization in the spreading of which the whites have undoubtedly contributed. Thus the drums which the Indians of (48) N. W. Brazil employ give the impression of being imitations of the drums of the whites. The Katapolítani Indians call the skin-drum «tamborino» and the Siusí Indians «tamorino».[2]) KOCH-GRÜNBERG does not mention any other names for the skin-drum. Moreover these drums are covered with skin on both sides, while the real Indian drum has skin on one side only. Nor do I consider the skin-drums found among the Indians

[1]) COBO, Vol. 4. p. 229 and MEAD, Pl. 2, fig. 7 and 9.
[2]) KOCH-GRÜNBERG, (5), p. 80.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

Map. 30. The Distribution of the Skin-drum.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

of (47) Guiana to be genuine Indian ones. Indeed the Macusi call the skin-drum «Zambola».[1])

The same is true also of the skin-drum which GILIJ found among the Indians of the (74) Orínoco. GILIJ himself is of this opinion. He writes as follows: —[2]) «mi do a credere, che questa foggia di tamburi sia moderna tra' Tamanachi. La voce Ciambura, con cui li chiamano, sembra venuta dallo Spagnuolo tambor.»

In keeping with this, K. v. d. STEINEN found no skin-drums among the Indians on the Upper Rio Xingú, who, when he visited them, were unaffected by the civilization of the whites. The Karajá have likewise no skin-drums.

The fact that the Chaco Indians stretched the drum-skin over an earthen vessel and not over a wooden frame must have been owing to the difficulty of working in wood with poor tools.

A C [534]

In the table on page 183 I have indicated the tribes among whom I have found the skin-drum. They are, besides the (19) Aymara and (18) Quichua who have now skin-drums of European type, only the tribes living south of Sta. Cruz de la Sierra. Skin-drums are found north of that place too, but exclusively among civilized Indians. It is, however, possible that the Indians there have had genuine Indian skin-drums, as the skin-drum is mentioned by CASTILLO[3]) from the (25) Mojo Indians, and by ALTAMIRANO[4]) from the (65) Baure.

Negro-slaves may also have spread the skin-drum in S. America. Thus PANHUYS[5]) mentions the skin-drum from the negroes of Surinam, where it is also found among the (55)[6])

[1]) GOEJE (1), p. 45.
[2]) Vol. 2, p. 350.
[3]) p. 310.
[4]) p. 107.
[5]) p. 524.
[6]) GOEJE, (1), p. 45.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

Kalina. BARRÈRE[1]) speaks of the skin-drum of the negroes in contradistinction to the flutes of the Indians.

In BOLINDER's collection from the (36) Ijca Indians in Columbia there is a skin-drum which has a distinctly African appearance[2]).

The skin-drum is furthermore known among the (30) Goajiro[3])the (05)Pauišana[3]), (42) Caripuna[4]),(06) the Indians on the Rio Napo[5]) the Indians on the (61) Rio Yapurá and Rio Içá[6]), (68) Omagua[7]), the Indians on the (91) lower Amazon[8]), (46) Conibo[9]), (14) Bororó[10]), (38) Tupinambá[11]), (38) Tupinaé[12]), (38) Amoipira[13]), (21) Cainguá[14]), (8) Lengua[15]), (X 4) Payaguá [16]), (10) Araucanians[17]), (66) Pegueneche[18]), (12) Mbayá[19]), (17) Abipone[20]), (33) Campa[21]), and (35) Chimila.[22]).

STADEN does not mention the skin-drum among the Tupinambá. Granting that the skin-drum has come to some

[1]) p. 192.
[2]) BOLINDER (4), p. 268.
[3]) PATER SCHMIDT, p. 1071.
[4]) GIBBON, S. 298. PATER SCHMIDT, p. 1071.
[5]) RIVET, (1), p. 53.
[6]) WHIFFEN, p. 246.
[7]) CHANTRE Y HERRERA, p. 71.
[8]) GASPAR DE CARVAJAL, p. 61.
[9]) ST CRICQ, p. 289; CASTELNAU, Vol. 4. p. 379.
[10]) K. V. D. STEINEN (3), p. 496.
[11]) SOARES DE SOUSA, p. 309.
[12]) SOARES DE SOUSA, p. 312.
[13]) SOARES DE SOUSA, p. 311. »e usam na guerra tambores que fazem de um só páo que cavam por dentro com fogo tanto até que ficam mui delgados.«
[14]) G. M. (15.8.0).
[15]) CRUBB p. 75.
[16]) AZARA, (2), p. 304.
[17]) MEDINA, p. 401.
[18]) LUIS DE LA CRUZ, p. 65.
[19]) SÁNCHEZ LABRADOR, Vol. 4, p. 309.
[20]) DOBRIZHOFFER, Vol. 2, p. 266.
[21]) ORDINAIRE, p. 281.
[22]) BOLINDER (4), p. 268.

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000 tribes from the whites and possibly also from negro slaves, it is yet evident that in the Chaco it is an element of civilization which the Indians have received from the mountain area of civilization.

Whether the special form of skin-drum — the earthenware drum — which is found among the Choroti and the Ashluslay, was also used by the Indians inside the western area of civilization, I do not know. Besides these tribes it is also known from the (8) Lengua[1]), (6) Mataco, and (X 4) Payaguá[2]).

A C [534]

Bolinder[3]) who, a short time ago, published a work on the musical-bow, mentions it from the Busintana, Araucanians and Patagonians in addition to the tribes named in the table. Like several other explorers Bolinder is of the opinion that the Indians received the musical bow from Africa through the medintion of negro slaves.

String instruments are held to have been unknown in America in the time before Columbus. They are not mentioned in the literature on the Incas from the time of the Discovery, nor have they been met with in the archaeological excavations which have been carried out in the dry coast districts of Peru, where they might well have been preserved.

The Indians seem to have learned the use of these string instruments from their white conquerors or their negro slaves at a very early date. (Gaspar de Carvajal[4]), who accompanied Orellana and described his journey, states of some Indian tribes on the lower Amazon (not at the mouth itself) that they had musical instruments fitted with three strings so-called »Arrabeles». He writes as follows: »Venían muy lucidos, con diversas divisas y trafan muchas trompetas

1) Grubb, Page 73.
2) Azara (2), Page 304.
3) (4).
4) Page 64.

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y atambores, y órganos que tañen con la boca y arrabeles que tienen a tres cuerdas.»[1])

As early, then, as the time of ORELLANA the Indians of the Amazon possessed a fairly advanced type of string instrument which they must have got from the Europeans, since it is not possible that such a complicated musical instrument could otherwise have had in the whole of America merely a local occurrence.

This is a matter of considerable interest, as it shows how speedily new elements of civilization coveted by the Indians can be acquired by them after they have come into contact with the conquerors. It is also probable that, especially at the beginning of the period of conquest, where famous Indian tribes like the Tupinambá, some Arawaks and others were not oppressed, foreign elements of civilization were more easily assimilated by them than later on when they lost their independence and self-confidence.

The *rattle-gourd* (Map 31) is common among the (1) Choroti and the (2) Ashluslay, as well as among the (7) Toba, (6) Mataco, and (3) Tapiete. Otherwise I have not met with it among any of the tribes whom I have visited on my journeys. [534]

The rattle-gourd, however, occurs over an extensive area in S. America. We find it among the (48) Siusí[2]), (48) Uanána[2]), (48) Tucáno[2]), (48) Tuyúka and other tribes on the Rio Negro, among the (61) tribes on the Rio Yapurá and Rio Içá[3]), (14) Bororó[4]), (9) Toba[5]) on the lower Rio Pilcomayo

[1]) It should be noted here that CARVAJAL's description of all that concerns the manners and customs of the Indians, with the possible exception of his description of the fight with the Amazons, gives a strong impression of trustworthiness.

[2]) KOCH GRÜNBERG (2).

[3]) WHIFFEN, Page 214.

[4]) K. v. d. STEINEN (3), Page 500.

[5]) DUCCI, Page 7).

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SK6 Choroti SK6

(28) Bakaïrí[1]), (28) Kamayurá[2]), (28) Nahuquá[3]), (77) Tapirapé[4]), (20) Paressi-Kabiši[5]) (15)) Kayapó[6]), (13) Karajá[7]), (50) Šavajé[8]), (21) Cainguá[9]), (8) Lengua[10]), (12) Mbayá[11]), (16) Guató[12]), (38) Tupinambá[13]), (713) Wayganna, S. Brazil[14]), (6 V) Guaná[15]), (55) Kalina[16]), (31) Ojana and Trio[17]), (47) Patamona[18]), (47) Makusi[18]), (47) Arecuna[18]), (8 X) Guarauno[19]), (30) Goajiro[20]), (36) Ijca[21]), (35) Chimila[22]), (54) Guahibo[23]), (X 3) Piaroa[24]), (818) Mitoua[25]), (46) Conibo[26]), (74) the Indians on the lower Orinoco[27]), (29) Caingáng[28]), (4 X) the Gês-tribes, Maranhão[29]), (5 B)

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[1]) K. v. d. Steinen (3), p. 320.
[2]) K. v. d. Steinen (4), p. 320.
[3]) K. v. d. Steinen (3), p. 320.
[4]) Kissenberth, (2), p. 72.
[5]) Max Schmidt (4), p. 240.
[6]) Krause, p. 400.
[7]) Krause, p. 317.
[8]) Krause, p. 305.
[9]) Outes and Bruch (5), p. 97.
[10]) Grubb, p. 74.
[11]) Sánchez Labrador, Vol. 2, p. 34.
[12]) Max Schmidt (3), p. 311. »Infant-rattles«.
[13]) Lery, p. 194; Soares de Sousa, p. 286; Staden, Vol. 2, (p. 25.) Yves d'Evreux, p. 134.
[14]) Staden, Bd. (2), (p. 25).
[15]) Cominges p. 200.
[16]) Goeje (1), p. 45.
[17]) Goeje (1), p. 24.
[18]) G. M., Lijkwalch-Thulin's collection
[19]) Appun Vol. 1 p. 468; Schomburgk, Vol. 1. p. 170
[20]) Candelier p. 200.
[21]) Bolinder (4), p. 207. (Also Köggaba).
[22]) G. M. (10.3.20), Bolinder.
[23]) Stradelli, p. 40. fig. 18.
[24]) R. M. (00. 31.6).
[25]) Crevaux. p. 480.
[26]) Sir Chicq p. 200.
[27]) Gilij, Vol. 2, p. 275.
[28]) Ambrosetti (1) p. 318.
[29]) Ribeiro, p. 180.

Map 31. Distribution of the Rattle-gourd.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6

000 Pariri[1]), (1C) Paez[2]), (17) Abipone[3]), (9 B) Arawaks, Guiana[4]), (5 X) Canella[5]), (25) Mojo[6]), (40) Guarayú[7]) and (X) Yurúna[8]).

Rattles are not found among the Gês-tribes on the Rio Doce[9]). They are not mentioned from the Jivaro Indians in Ecuador[10]) nor by EHRENREICH[11]) and STEERE from the tribes on the Rio Purús. In some parts rattles of other materials are found. The Patagonians have rattles of skin[12]), the Chamacoco[13]) have rattles consisting of two tortoise-shells tied together with a wooden handle.

According to UHLE, who has carried out such extensive excavations in western S. America, the rattle-gourd seems not to have been in use inside the area of civilization during later times. With regard to this area, as far as I know, it is not mentioned by any of the authors who describe the manners and customs of the Incas. In the old excavations at (B) Arica UHLE, however found calebash-rattles as well as rattles made of the bladders of animals and, possibly, of fishes, which were filled with small stones[14]). MEAD[15]) mentions also the rattle-gourd from the Peruvian coast, though without indicating exactly where it is found. DEBENEDETTI[16]) gives a sketch of a calabash-rattle found at (F) San

[1]) NIMUENDAJÚ UNKEL (1) p. 622.
[2]) PITTIER DE FÁBREGA, p. 125.
[3]) DOBRIZHOFFER, Vol. 2. p. 200.
[4]) GUMILLA, Vol. 1, p. 174.
[5]) KISSENBERTH, (1), p. 51.
[6]) EDER, p. 348.
[7]) CARDÚS, p. 70.
[8]) K. v. d. STEINEN (2), Ethnologische Taf. Nr. II.
[9]) WIED, Vol. 1, p. 147.
[10]) RIVET (1); FESTA.
[11]) (2).
[12]) CUNES, (3), p. 259. »Siendo el instrumento musical que por entonces construian un pequeño recipiente con algunas pedrezuelas en su interior.« (after DRAKE, p. 50).
[13]) BOGGIANI (1), fig. 33.
[14]) UHLE, (6) p. 14. [15]) p. 11. [16]) (4) p. 63. Fig. 30.

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SK6 Choroti SK6
Ashluslay SK5

Juan in Argentina. Two types of rattle gourd can be distinguished in S. America. In the one the tapering part of the calabash serves as handle, while in the other the handle consists of a peg stuck through the calabash. It is the first, more primitive type which is found in the Chaco. It is not possible, at present, to make a satisfactory map of the distribution of the two types, as most of the authors who mention the rattle-gourd do not describe it in detail.

Evidently the rattle-gourd is an ancient element of civilization in S. America, and at the present time it is impossible to say whence the Choroti and Ashluslay received it.

I have not seen dance-masks among the Choroti or Ashluslay. A large number of the ornaments mentioned here, however, are in the first instance worn when dancing. On these occasions also girdles are worn with pendent claws of the tapir, peccary and other animals, which serve as rattles. Rattles of this kind are also fixed on long sticks and used in a certain dance.

Similar rattles are widely spread in S. America. Their pendents, however, consist almost everywhere of fruit-rinds instead of claws. In the districts where I have travelled they are very rare. I have only seen them among the Churápa in the neighbourhood of Sta Cruz de la Sierra. From literature I know of such rattles of fruit-rinds from the Indian tribes on the Rio Negro[1]), Rio Yapurá and Rio Içá[2]), the Jivaro[3]), Bakaïrí[4]), Karajá[5]), Tupinambá[6]), Patamona and other tribes in the Roraima area[7]) Aekawoi[8]),

[1]) Koch-Grünberg (2), Vol. I, Fig. 174
[2]) Whiffen, p. 213
[3]) Rivet (1), Fig. 7 & 17
[4]) K. v. d. Steinen (3), p. 320
[5]) Ehrenreich (2), p. 40
[6]) Soares de Sousa, p. 208.
[7]) G. M
[8]) Schomburgk, Vol. I, p. 205.

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SK6 Choroti
Ashluslay SK5
Mataco SI7

A
M
534

a. b.

Fig. 40. Rattles made of the claws of animals.
a. G. M. (B. 298) 1/2. Ashluslay.
b. R. M. (M. 341) 1/2. Mataco.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

Warrau[1]), Conibo[2]), Canella[3]), Tapuya[4]) Cumanagoto[5]) and from the Incas[6]), and rattles of the claws of animals from the Payaguá[7]) and Kayapó[8]).

If the great museums were searched a number of these ratties would probably be found from other tribes. Moreover the particulars I quote here from literature on the subject might certainly be considerably amplified. It is interesting to see how the claws are fastened on the rattles from the Chaco. (Figs 49a and 49b)

Trumpets of a peculiar kind are found among the Choroti, Ashluslay and Chané. They consist of a cow's horn with a reed mouthpiece (Fig. 50). I have not seen trumpets with such mouthpieces among any other Indian tribes visited by me, nor have I found them described in works on the S. American Indians except in some works dealing with the Chaco; I am therefore inclined to assume that the Indians have learnt their use from the whites. Still, this is not absolutely certain, as they are mentioned by so early a writer as Sánchez Labrador from the Mbayá[9].) It is, however, very probable that the Mbayá, even in Labrador's time, had learnt the use of such trumpets from the whites.

The Choroti and the Ashluslay have whistles made of reeds, wood and skulls.

The simplest whistle is one consisting of a small skull

[1]) Schomburgk, Vol. 1, p. 154.
[2]) Ordinaire, p. 900.
[3]) Kissenberth (2), p. 99.
[4]) Piso et Marcgrav, p. 271.
[5]) Oviedo y Valdés, Vol. 2, p. 230.
[6]) Como, Vol. 1, p. 220.
[7]) Azara (2), p. 150.
[8]) Pohl, p. 101.
[9]) »Mientras beben los convidados tocan una corneta, cuyo ronco sonido aturde y amedrenta. No es otra cosa esta bocina, que un cuerno de vaca, ó un calabazo largo, agujereado, y por boquilla un cañuto de caña con su lengüeta, al modo de las trompetillas que hacen los muchachos.» Vol. 2, p. 1.

[text continues on p. 179]

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SK6 Choroti SK6

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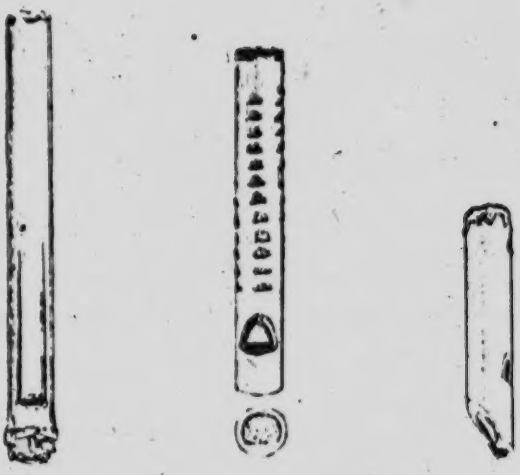

Fig. 50. Mouthpiece of reed for a trumpet. Choroti. G. M. (D. 929) 2/3.
Fig. 51. Reed whistle. Choroti. G. M. (D. 788) 1/2.
Fig. 52. " " " " (D. 787) 1/2.

Map 32. The Distribution of the Long Whistle.

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2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti
Ashluslay SK5

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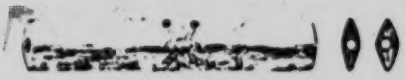

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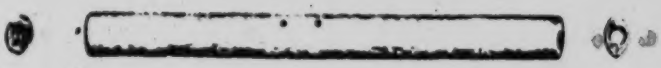

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Fig. 53. Wooden whistle. Ashluslay. G. M. (A 806). 1/1.
Fig. 54. Wooden whistle? Pachacamac. M. f. V. B. (V. A. (40214) 1/1.
Fig. 55. Scales with wooden beam. Peru. M. f. V. B. (V. A. 35905) 1/1.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

in which all openings have been stopped with wax except the occipital cavity, which is used for whistling. I have seen such whistles among the Mataco and the Chimane, as well as among the tribes mentioned above. KOCH-GRÜNBERG[1]) mentions them from the Tucáno and Kobéua, WHIFFEN[2]) from the Indians on the Rio Yapurá and the Rio Içá.

A type of whistle which the Chaco Indians have plainly received from the mountain area of civilization (Map 32) is the wooden whistle represented in Fig. 53. The method of use is to hold the whistle vertically from the mouth and to blow into the upper hole while the lower hole is covered by the finger. I have found whistles of this kind among the (1) Ashluslay, (4) Chiriguano, (5) Chané, (23) Churapá, and (22) Yuracáre. In the Gothenburg Museum we have a similar whistle also from the (8) Lengua Indians. HAWTREY also mentions them from this tribe. A comparison of the whistles here illustrated with the object found at (A) Pachacamac on the Peruvian coast makes it clear that the latter is a thing of exactly the same kind as the one now used by the Indians of the Gran Chaco. It is, moreover, plain that this object was originally but the beam of a pair of Peruvian scales. (Fig. 55) Exactly as we ourselves, once upon a time, in our young days at least, amused ourselves by whistling on a key, the Indians used the hollow beam of their scales as a whistle. This use of the scale-beam evidently spread to the tribes east of the Andes who are fond of whistling but have no need for scales. Genuinely Indian scales and balances are no longer to be found in S. America, but the scale-beam of the old weighing-scales, degenerated into the form of a whistle, still exists among several tribes. This is an amusing instance of the manner in which the function of an object can be changed.

Nearly every young (1) Choroti and (2) Ashluslay man carries a small round wooden whistle. (Fig. 56). One sees

[1]) (2), Bd. 1, p. 302.
[2]) p. 211.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

A
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whistles of this kind, though less frequently, among the (6) Mataco[1]). I have also seen them among the (4) Chiriguano, (5) Chané, (3) Tapiete, (23) Churúpa and (22) Yuracaré. Grubb[2])

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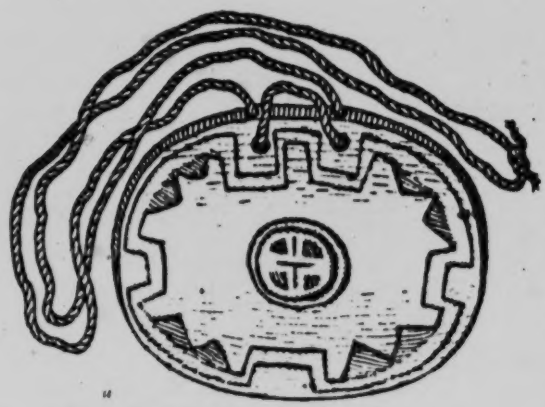

Fig. 50 a. Wooden whistle. Choroti G. M. (D. 793) $\frac{1}{1}$.

mentions them from the (8) Lengua and Campana[3]) from the (9) Toba. This type of whistle, therefore, occurs within a continuous area along the Andes and in the Chaco. (Map

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[534]

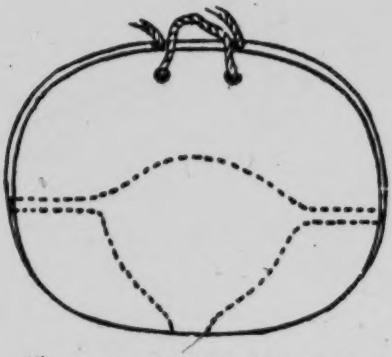

Fig. 50 b. Section of the same.

[1]) R. M. (03. 3. 500).
[2]) p. 75.
[3]) (2), p. 310, fig. 19 b.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

Map. 33. The Distribution of the Round Whistle.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

33) I have looked for these whistles in the vast archaeological collections from the Peruvian coast-lands possessed by the Berlin Museum of Ethnology without finding any. Nor is there any mention of them from those places in the literature to which I have had access. Nevertheless I think it very probable that we have here a culture-element which has come to the tribes east of the Andes from the mountain area of civilization. Moreover, I think it extremely probable that these whistles will, in the future, be found in the Peruvian coast-lands. Its western origin I conclude from the uniqueness of its area of occurrence, which is now exactly co-terminous with that of the above-mentioned whistles of the scale-beam type.

It is of interest to notice that the ornamental carving of these wooden whistles is everywhere very similar except among the Yuracáre[1]).

The flutes found among the Choroti and Ashluslay are very simple. They are made of reeds and much resemble those which Mead[2]) has depicted from the coast-tracts of Peru, though the latter are mostly made of bones. In the area explored by me, except among the tribes of the Chaco, I only know of them from the Yuracáre. Similar flutes are mentioned and illustrated by Koch-Grünberg[3]) and Whiffen[4]) from N. W. Brazil. The Gothenburg Museum possesses specimens from the Arecuna and other tribes in Guiana[5]). The Karajá have no flutes[6]). The flutes in different parts of S. America are too little known for me to venture to express any

[1]) Nordenskiöld (5), p. 25. [2]) Pl. 5.

[3]) (2), Vol. 1, p. 301, fig. 181 and 182. [4]) Page 211.

[5]) The Liljewalch-Thulin collection. G. M.

[6]) »The Karajá Indians are not rich in musical instruments. They have only signalling trumpets, small whistles and tortoise-shell scrapers; rattles serve as the accompaniments of songs. And that is all.» This dearth seems strange, as the Karajá are fond of singing and sing well, and seem to have considerable musical talent.» Krause, p. 315. The Cháma, Atsahuaca, and Tambopata-Guarayo have no musical instruments, nor have the tribes of Tierra del Fuego.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5
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opinion as to the place whence the Choroti and Ashluslay have received their flutes.

In the following table I give a review of the area of occurrence of the musical instruments found among the Choroti and Ashluslay within the area studied by me. I have included the pan-flute, which does not occur among the tribes dealt with here.

	Number on the Map.	Rattle-gourd.	Skin-drum.	Trumpets.	Whistle Fig. 51.	Whistle Fig. 50.	Musical bows.	Skull whistles.	Flutes of the Chaco type.	Pan flutes.	Reed whistles.	Bone whistles.	Flutes in general.	Rattles made from fruit rinds and claws of animals.
Ashluslay	2			?										
Atsahuaca														
Aymara	19	—	+											
Chacobo														
Chama														
Chané	5													
Chimane		—												
Chiriguano	4	—								?				
Choroti	1													
Churápa	23	—	O[1]											
Guarayú (Pausserna		—	—											
Huanyam		—	—											
Huari		—												
Mataco	6													
Quichua	18	—												
Tamb.-Guarayo		—	—	—										
Tapiete	3			?										
Toba	7,9			?										
Yamiaca		—	—	—										
Yuracáre	22	—	—	—										

[1]) O received from the whites.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XXIII.

Trophies.

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In the year 1909, in the Chaco, I succeeded in acquiring a scalp from the Mataco Indians (the scalp of an Ashluslay Indian) and one also from the Ashluslay Indians (the scalp of a Toba-Pilaga). I also learned that the Choroti take scalps. FRIEDERICI has written a comprehensive and excellent work on scalping and similar customs in America, which is based on extensive literary studies.

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He there shows that scalping has two areas of occurrence in S. America[1]). The one comprises El Gran Chaco, and the other Guiana. Respecting the former he quotes numerous statements from literature on the subject. Among the writers quoted is SCHMIDEL. FRIEDERICI holds that the custom of scalping, in Guiana, is post-Columbian. ROTH[2]) is of the same opinion.

The keeping of whole human heads as trophies is, according to FRIEDERICI, a very widespread custom in S. America. According to his map this custom prevailed in the whole of S. America except in El Gran Chaco, Patagonia, and Tierra del Fuego. The correctness of this statement is not, however, apparent from the text of his work. From this work I formerly got the impression that head-hunting occurred among the highly developed tribes of western S. America, including the Incas, in Eastern Ecuador,

[1]) (1) p. 30.
[2]) (2) p. 4.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

and everywhere among the Tupi-Guarani tribes, but not within large tracts of Brazil. Thus, K. v. d. Steinen, who visited completely primitive Indians on the Rio Xingú found there no trophies of this kind. The preservation of the whole head, or of only a part of it, is fundamentally the same custom, so that we can scarcely assume that scalping had its origin in the Chaco. We have to do with an old custom which, as SELER[1]) has shown, even in so specialized a form as that in which the Jivaro practise it, was known in Peru as far back as the Nasca period[1]).

[1]) (1). See also UHLE.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti
Ashluslay SK5

XXIV.

Property Marks. (Map. 34).

422 The (2) Ashluslay Indians have property marks on their cloaks.

000 From objects found in the excavations at (A) Pachacamac[1]) we are acquainted with property marks from the (4) Chiriguano[2]) and (12) Mbayá[3]) Indians. MARTIUS[4]) writes of Guaycurú (Mbayá): — «Like some other tribes on the Pampas, the custom prevails among them for the Head of the family to brand some particular figure on the breast of the women, on the cruppers of the horses, and even on the dogs.» The Chiriguano have property marks on their calabashes, which easily get exchanged in the drinking-bouts.

I have here reckoned property marks to be among the elements of culture which the Chaco Indians have received from the mountain civilization, as these are known from pre-Columbian times. Still, they may be derived from the whites who put such marks on their horses and cattle. The whites dwelling in the Chaco, however, as far as I have seen, do not put these marks on their household utensils, as the Indians do.

[1]) UHLE (2), p. 87, fig. 104.
[2]) NORDENSKIOLD (11), fig. 6.
[3]) (CADUÉO), BOGGIANI (2), fig. 102.
[4]) p. 230.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

Map 34. The Distribution of Property Marks.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XXV.

Miscellaneous Handicrafts.

The manufacture of rope and string and the spinning of yarn.

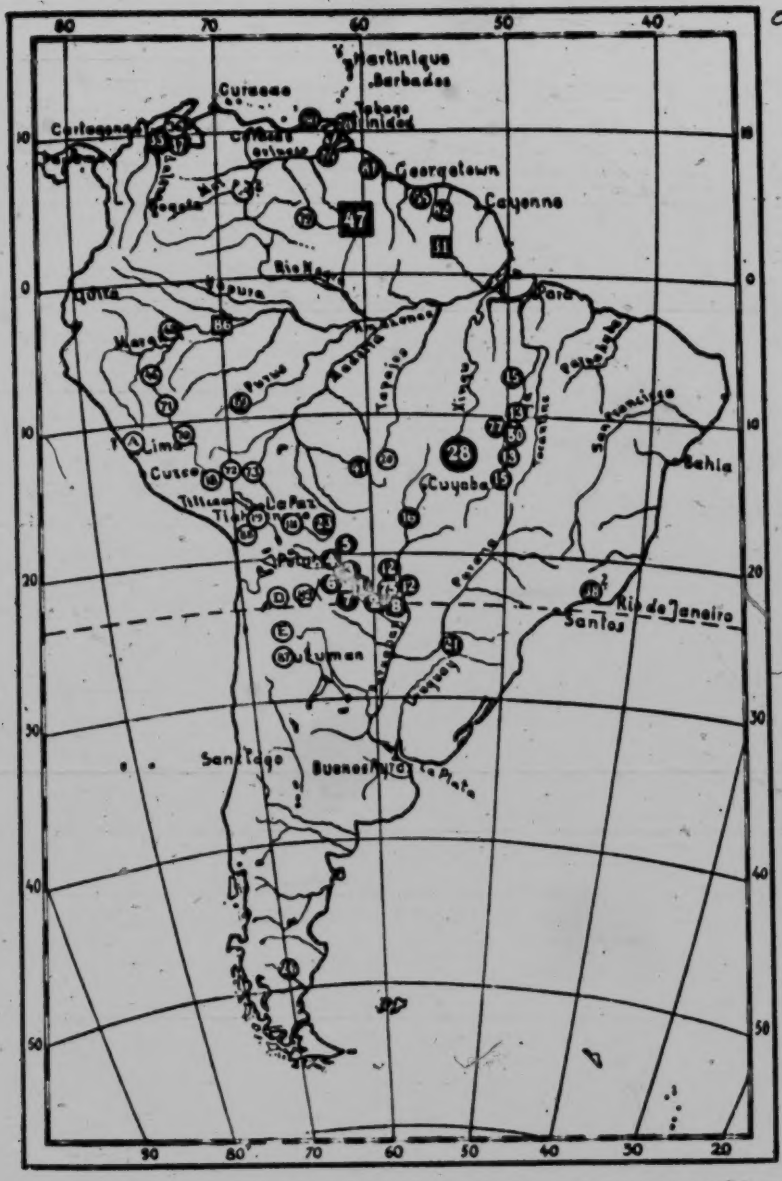
In conjunction with FRÖDIN I published a short time ago a work on the twisting and spinning of yarn in S. America. Those who are interested in these branches of Indian handicrafts I beg to refer to this work.

We there showed that, broadly speaking, two methods of spinning can be distinguished in S. America. These we called the Bakaïrí and the Bororó methods. We indicated also the occurrence of some varieties of these methods.

We described the spindle in use among the Bakaïrí as follows: — The typical Bakaïrí spindle is characterized by a spindle rod, the lower end of which is thicker and which is more or less truncated. As a rule it is not very carefully made. The whorl is put onto the rod from above and, consequently, cannot slip off when the spindle is held in a vertical position. The whorl-disc as a rule is near the thick, lower end. The upper end is provided with a slit or a hook, or it may be quite smooth.

We characterized the Bororó spindle as follows: — The Bororó type is characterized by its carefully carved and polished rod being spool-shaped. It is usually made of black palm-wood, so-called «Chonta». The spinning-whorl is generally very near one end of the rod and is put on the rod from below. As this spindle is always employed in a more

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6



Map. 35. Distribution of the Bakaïrí type of Spindle.

- ○ Rod without notch or hook.
- ● Rod with notch.
- ■ Rod with hook.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

or less horizontal position, the rod has no need of a thicker end, like that of the Bakaïrí spindle, to prevent the slipping off of the whorl.

As might be expected in this method of spinning, this type of spindle is never, as is often the case with the Bakaïrí spindles, provided with hooks, knobs, etc. at one end.

A C 283 The Choroti and Ashluslay have typical Bakaïrí spindles which are always provided with knobs at the upper end. On Map 35 I have indicated the distribution of these spindles in accordance with the work of FRÖDIN and myself.

Spindles of the Bakaïrí type are met with among the following tribes:

(28) Bakaïrí, (28) Kamayurá, (28) Mehinakú, (28) Aukuku, (28) Nahuquá, (28) Suyá, (28) Trumaí, (28) Kustenaú, (28) Aueto, (77) Tapirapé(?), (20) Paressi-Kabiši, (15) Kayapó, (13) Karajà, (50) Šavajé, (4) Chiriguano, (21) Cainguá, (8) Lengua, (12) Mbayá, (75) Angaité, (75) Sanapana, (3) Tapiete; (5) Chané, (6) Mataco, (1) Choroti, (2) Ashluslay, (16) Guató, (23) Chúrápa, (41) Guarayú, (Pauserna), (38) Tupinambá (55) Kalina, (31) Ojana and Trio, (47) Patamona, (47) Makusi, (47) Arecuna, (47) Wapischana, (78) Caribs of Trinidad, (79) Yekuaná, (80) Guaiqueri, (81) Indians on the coast of Guayana (82) Arawaks on the Saramacca, (36) Ijca, (36) Köggaba, (35) Chimila, (37) Motilon, (54) Guahibo, (68) Omagua, (86) Yahua, (69) Ipurina, (70) Piro, (71) Sipibo, (46) Conibo, (72) Atsahuaca, (73) Cháma, (18) Quichua, (19) Aymara, (26) Tehuelche, (7) Toba, (87) Mestizos in N. Argentina, (88) Indians of Tacna, (74) Tamanaco and (89) Indians on the Calilegua.

In the course of archaeological excavations spindles of the Bakaïrí type have been discovered in the temple of the Sun-maiden at (A) Pachacamac on the coast of Peru, in the (D) Puna de Jujuy and in the (E) Diaguita district of N Argentina.

We see that the Bakaïrí spindles are widely distributed in S. America. In all likelihood this type of spindle came

Map 36. Distribution of the Eyed Needle.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

originally from the mountain area of civilization, as FRÖDIN and myself have endeavoured to show. I shall return to this problem later on.

The spindles of the Choroti and Ashluslay are, as was mentioned, provided at the upper end with a knob round which the wool to be spun is fastened. This invention does not seem to be a product of the mountain civilization, but to have been one of the few elements of civilization which the Indians of the Chaco have received from the northern and western parts of S. America. Probably it came to the Chaco with the Guarani Indians, since the Arawaks at Mojos north of the Chaco have spindles of the Bororó type. It is indicated on the map which tribes in S. America have spindles of this kind. There are some S. American tribes whose spindles are provided with a hook instead of a knob at the upper end.

Sewing, or the use of the eyed needle.

The Indians of the Chaco have plainly learnt the use of the eyed needle from people of the the n ountain civilization. RIVET and VERNEAU[1]) have given a summary of the places where eyed needles have been found in archaeological excavations. From this it appears that, previous to its introduction by the whites, the eyed needle in America had a markedly western distribution. (Map 36). RIVET and VERNEAU mention the following places where metal needles have been found: — Neighbourhood of Cañaris, Ecuador, Piura, Chuquitanta, Marquez, Ancon, Paumalca (valle de Chiclayo), Trujillo, Huadquiña and Choquequirao in Peru (K, A), (I) Tiahuanaco, (I) Titicaca Island, (G) Queara, (Z) Tocarji and (Z) Asnapújio[2]) in Bolivia, (D) Casabindo, (E) Santa Maria, (E) La Loma (not far from Puerta del Belen) in Argentina. Rivet and VERNEAU[3]) quote, furthermore the following places for bone needles: — (L) Cañar (Ecuador), (E) La Paya (N.

[1]) (4) p. 284.

[2]) Only a few of these places are shown on the map.

[3]) (1) p. 252.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

Argentina) and (H) Neighbourhood of Buenos Aires. Wooden needles have been found at (D) Casabindo and (D) Sayate in the Puna de Jujuy, at (C) Calama in the Puna de Atacama[1]) and at (B) Arica[2]). I have found[3]) wooden needles in a grave in a cave at (G) Quearatal in Bolivia and at (G) Corani in Peru.

At (B) Arica UHLE[4]) found large needles of wood and smaller ones of thorn. REISS and STÜBEL[5]) depict a sewing-needle »out of a large thorn» from Arica.

Among the Indians whom I have visited on my travels the (1) Choroti, (2) Ashluslay, (6) Mataco, (7) Toba and (3) Tapiete use home-made needles. These are made of bones, wood or the thorns of a plant. CRÉVAUX[6]) mentions bone-needles from (31) Roucoyenne (Ojana), and KRAUSE[7]) found them among the (13) Karajá. I have seen a bone-needle from the (30) Guayaki in the Museum of Ethnology at Berlin. KOCH-GRÜNBERG mentions bone-needles from the (48) Káua on the Rio Aiarý[8]) and the (48) Kobéua on the Rio Cuduiarý[9]); ARMENTIA[10]) from the (49) Araona. K. v. d. STEINEN found no eyed needles among the Indians on the Rio Xingú. From the Mehinakú, one of the Xingú tribes, RADIN[11]) mentions needles consisting of two light, thin pieces of wood held together by very fine fibres. At the upper end a slit is left open.

[1]) BOMAN, p. 508.
[2]) EWBANK, Pl. 10, fig. 6.
[3]) NORDENSKIÖLD (3), p. 18 and 34.
[4]) (6) p. 12.
[5]) Vol. 3, Pl. 83, fig. 13.
[6]) p. 262.
[7]) p. 290.
[8]) (2) Vol. 1, p. 117.
[9]) (2) Vol. 2, p. 108.
[10]) p. 61.
[11]) p. 932.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti
Ashluslay SK5

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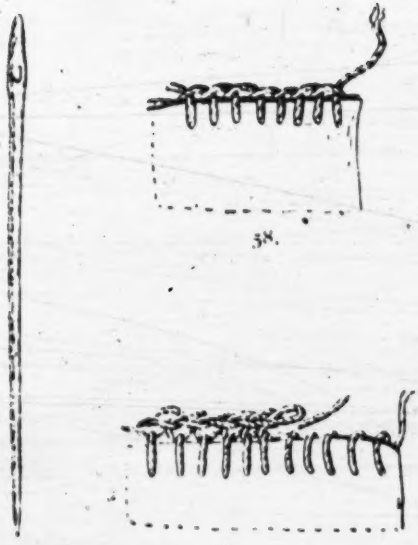

57. 58. 59.

57. Wooden needle. Ashluslay. R. M. (A. 675) 1/2.
58. 59. Specimens showing how leather-bags are sewn. Ashluslay 1/1.
58. R. M. (A. 179).
59. R. M. (A. 533).

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

The Abipone would seem to have no needles[1]). The Tupinambá were unable to sew[2]). Some tribes have probably learnt the use of the eyed needle from the whites.

It seems to me impossible to distinguish from the shape of the needles whether they are imitations of the needles of the whites or not. The needle is an element of culture which the Indians may easily have got to know from the whites. It is also an element of culture which easily disappears under the influence of the whites. Still, I consider it probable that the Chaco Indians had already learnt the use of the needle from the western area of civilization. This holds good not only of the smaller needles (Fig. 57) used for sewing and plaiting, but also of the large needles which the Indians use when fishing.

Needles in the Chaco are used in the first place for making Caraguatá bags of different kinds. Thus the netting represented in Fig 60 (4—6) is done with the needle. One seldom sees the joining of two pieces of cloth among these Indians. Now and then they strengthen the end-band of a rent mantle. Holes are darned with the help of needle and thread (see Fig. 28), but usually in very coarse fashion. Smaller or larger bags of skin are often sewn together. Figs. 58 and 59 show specimens of such work.

Knitting and sewing.

While baskets are altogether wanting[3]) among the Choroti and Ashluslay, they do more string work than most of the other S. American Indians.

These bags, etc., have, in part, to take the place of the basket work of other peoples.

Some of this work is plaiting, other knitting. Most of it is sewing. We see from the illustrations what different spe-

[1]) Dobrizhoffer, Vol. 2. p. 132.

[2]) Soares de Sousa, p. 290.

[3]) The only baskets found here are the fishing-gear mentioned on page 50.

[text continues on p. 198]

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti
Mataco SI?
Ashluslay SK5

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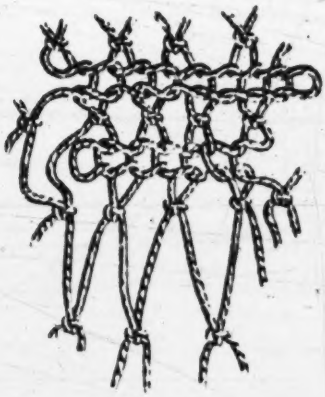

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4 a.

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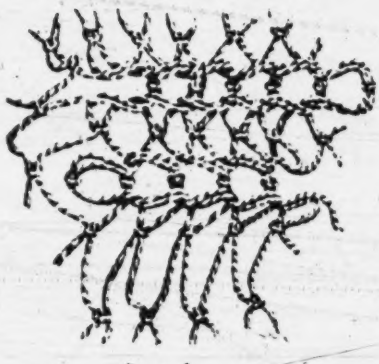

3 b.

4 c.

Fig. 60. Specimens of technique in the bags and netting in El Gran Chaco.

1. Reef knots.
2. Sheet-bend.
3 a. R. M. (A. 1538) Ashluslay.
3 b. R. M. (A. 1835) "
4 a. R. M. (M. 191) Mataco.
4 b. R. M. (A. 1589). Ashluslay.
4 c. R. M. (A. 1487). "

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Mataco SI7
Ashluslay SK5

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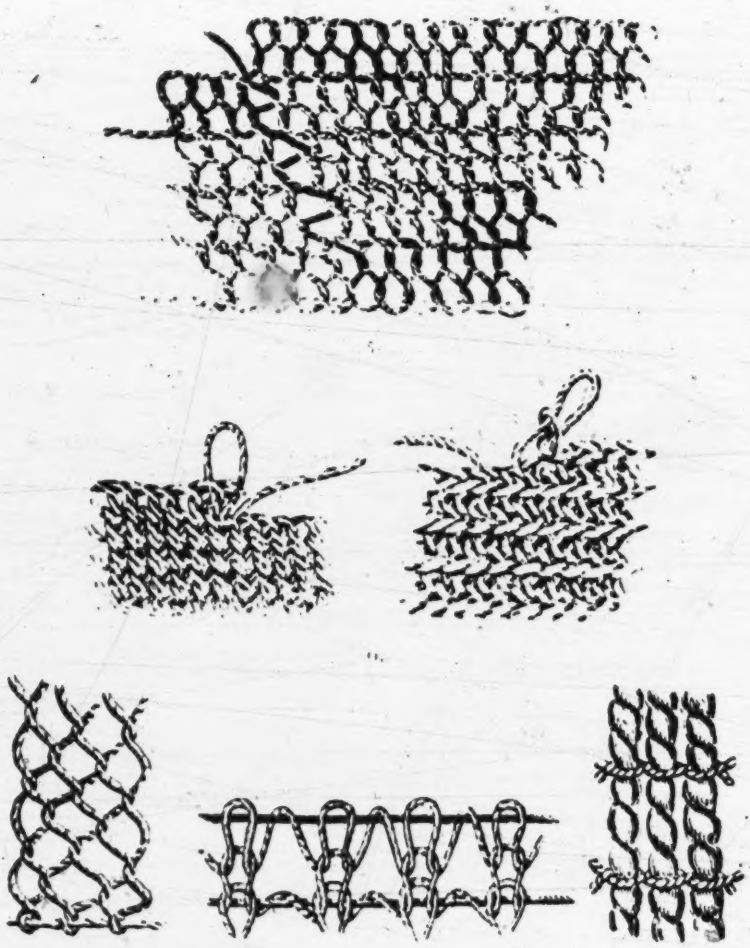

Fig. 60. Specimens of the technique in the bags and netting in El Gran Chaco.

5. R. M. (M. 192) Mataco.
6. G. M. (D. 650). Choroti.
7. R. M. (A. 1494). Ashluslay.
8. G. M. (13.1.496) Mataco.
9. G. M. (A. 1528). Ashluslay.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

A
C
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cimens of technique occur among the tribes dealt with here, and the table on page 200 shows where they occur inside the area investigated by me.

Of these different specimens of technique 1 is used for small bags and 2 chiefly for the large landing-nets; 4 a for small bags and 4 b for hairnets; 5 is above all for the large bags used for carrying; 6 for small bags and for most shirts; 3a and 3b for large bags and for the stockings which serve for protection from the Palometa fish; 8 for small bags; 7 for the sides of a certain form of bag; 9 for small honey-strainers. Specimens 1—7 and 9 I have only seen in work made of Caraguatá, and 8 only in woollen bags.

It would be of very great interest if a study were made of the distribution of the various kinds of knitting and plaiting etc. in S. America. A beginning has been made by RADIN who, however, though the rich material of the Berlin Ethnological Museum was at his disposal when writing his treatise, strangely enough did not examine the specimens of work which that collection contains from the coast lands of Peru, but confined himself to specimens of work carried out by present-day Indians.

Ordinary netting is widely distributed in S. America. It occurs in all the places where the Indians are indicated as using landing-nets and nets. There are two kinds of knots: *reef-knots* (Fig. 60.1) and *sheet-knots* (Fig. 60.2). The Ashluslay and Choroti employ the latter in nets and occasionally for bags, the former in bags only. In addition to the places indicated in this table, reef-knots are found in N. W. Brazil[1]), on the coast of Peru[2]), in Guiana[3]), and among the Lengua[4]). According to KRAUSE[5]) the sheet-knot is in use among the Karajá. It would be extremely interesting if some one

[1]) G. M. (16. 5. 33) Collection of KOCH-GRÜNBERG.
[2]) G. M. (16. 9. 78).
[3]) G. M. (12. 1. 343). Collection of LILJEWALCH-THULIN.
[4]) G. M. (2134). Collection of GREBST.
[5]) Fig. 136 b.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

would make a map, based on the collections of the great museums, showing the distribution of these and possibly other knots in S. America.

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The Choroti and Ashluslay knit their nets with mesh-sticks (Fig. 61) like those in use in Sweden. I have, moreover, seen the mesh-stick in use among the Mataco, Toba, Chiriguano, Chané and Tapiete. I have not seen it among other tribes, but I would not venture to assert definitely that it does not exist among them.

Fig 61. Mesh-stick. Ashluslay. R. M. (A. 102). $^1/_2$.

KOCH-GRÜNBERG[1]) mentions it from N. W. Brazil. The Jengua make their nets without a mesh-stick; as also the Karajá[2]) and the Ona[3]). Objects have been found on the Peruvian coast which may be mesh-sticks, as for instance at Pachacamac[4]).

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The mesh-stick is one of those elements of culture whose distribution is too little known for us to venture to draw conclusions regarding its source.

[1]) (2) Vol. 2, p. 37.
[2]) Grubb, p. 68.
[3]) KRAUSE, p. 288.
[4]) GALLARDO, p. 203.
[5]) SQUIER, p. 96.

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2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SKS

Table showing the distribution of the different kinds of technique in the making of bags and nets.
The numbers refer to figures 60.1 - 60.9.

Technique	No. on map	1.	2.	3.	4.	5.	6.	7.	8.	9.
Ashluslay	2.	R.M. A. 1475.	R.M. A. 1538.	R.M. A. 1538. R.M. A. 1835.	R.M. A. 1465.	R.M. A. 1117.	R.M. A. 1173.	R.M. A. 1491.	—	G.M. A. 1528.
Atsahuaca	32.									
Aymara	19.	[2])								
Chacobo	62.									
Châma	73.									?
Chané	5.	R.M. P. 121.								R.M. P. 126.
Chimane	24.	G.M. 15.1. 914.								
Chiriguano	1.	R.M. E.666.	R.M. E.678.							R.M. E.614.
Choroti	1.		G.M. D. 051.	G.M. D. 660.	G.M.[1]) D. 239.	G.M. D. 252.	G.M. D. 050.	G.M. D. 241.	G.M. D. 239.	—
Guarayú (Mission)	10.	—	—	—	—	—	—	—	—	
Guarayú (Pausema)	11.	—				—	—	—	—	G.M. 15.1 845.
Huanyam	43.	—				—	—	—	—	G.M. 15.1 601a
Huarl	94.	—				G.M. 15.1. 435.	—	—	—	G.M. 15.1.416.
Mataco	6.	—	R.M. M. 232.	R.M. M. 1140.	R.M. M. 191.	R.M. M. 1036.	R.M. M. 1136.	—	G.M. M.G. 65.	—
Quichua	18.					—	—	—	—	—
Tambopata-Guarayo	6X	—	—	—	—	—	—	—	—	—
Tapiete	3.	R.M. L. 203	R.M. L. 257.	R.M. L. 257.	—	R.M. L. 179.	R.M. L. 180.	G.M. L. 26.	—	R.M. L. 32
Toba	7.9.	G.M. 580.	R.M. To. 24.	R.M. To. 24.	—	R.M. To. 47.	—	—	—	—
Tsirakua	93.	—	—	—	—	R.M. Z. 35.	—	—	—	R.M. Z. 32.
Yamiaca	63.	—	—	—	—	—	—	—	—	+
Yuracáre	22.	+	—	—	—	—	—	—	—	—

[1]) The Choroti, when they mend cloth use a variation of this technique. [2]) Orbigny, p. 63.

[p 209]

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

Map. 37. Distribution of Technique 5. (Fig. 60.5).

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6

Technique 4, in which a needle is used, is said by RADIN to occur, in addition to the Chaco, only in N. W. Brazil (tribes on the Rio Negro and Rio Yapurá) and among the Botokudo. It occurs also among the Guayaki [1]), Ijca [2]), Köggaba [3]), Motilon[4]), Araucanians[5]), and the Jivaro and other Indians in Ecuador[6]) and in the oldest graves at Arica[7a]).

The variation 4b from technique 4 employed in head-dresses has also been in use in Peru. In the Gothenburg Museum this technique can be seen exemplified in a small bag from the vicinity of Lima[7b]).

Technique 5 (Map 37), which is likewise executed with the needle, is mentioned by Radin[8]) from the (28) Ronuro tribes (Rio Xingú) as well as from the Chaco. In the National Museum at Stockholm a very similar technique may be seen in a bag from (A) the coast of Peru[9]). It occurs among the (11) Chamacoco[10]), (8) Lengua[11]), and (12) Mbayá(?)[12])

Techniques 3 and 6 do not occur elsewhere than in the Chaco and must, therefore, be reckoned among the elements of civilization peculiar to the Chaco. Technique 6 and probably 7 too are executed with the needle. Technique 7 is the same as the Guaraúno Indians employ for so-called «purse-net» hammocks.

Technique 9 is the one usually employed for most hammocks by Indians from the Chané tribe in the Chaco to the Indians on the coast of Guiana.

[1]) M. f. V. B.
[2]) G. M. BOLINDER collection.
[3]) G. M. BOLINDER collection.
[4]) BOLINDER (2), fig. 26 b.
[5]) MASON p. 535.
[6]) UHLE (1), Vol. 2. Plate 9.
[7a]) G. M. SKOTTSBERG Collection.
[7b]) G. M. (P. 1).
[8]) P. 948.
[9]) R. M. (1910, 19.22).
[10]) BOGGIANI (1), fig. 42.
[11]) G. M. (2135).
[12]) SÁNCHEZ LABRADOR. Vol. 1, p. 271.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

It is also used by the Tsirakua of the northern Chaco in Caraguatá mantles and, no doubt, belongs to the elements of culture which the Indians of the Chaco received from the north or east.

In all likelihood techniques 4.5, and 6 were found among the Mbayá in the 18 th century. SÁNCHEZ LABRADOR[1]) writes as follows of bags in this tribe: — «Hay unas de anillos á ojos grandes, y otras de pequeños y algunas del todo cerradas.»

The existence in the Chaco of so many kinds of knitting is probably connected with the cultural influence from the area of civilization in western S. America. Proof of this can however, only be adduced after study of the specimens of the kinds of work found there. I am afraid that plain specimens of knitting, not possessing aesthetic value, are not always brought up to the light at the excavations in the coast lands of Peru. On this account it is important that future expeditions should collect such material in those parts. The plundered excavation areas must certainly have still a great deal to offer in this respect.

Plaiting of rope and string.

A C 283

Both the Ashluslay and the Choroti have some rather peculiar plaited bands, strings, etc. It being impossible to draw any anthropogeographical conclusions from these at present, owing to the lack of comparative material, I would prefer not to deal with them here.

Brush and Broom-making. [a]

There is no work on Indian brooms.[b] As I have already remarked, they are a culture-element which the Indians received from the area of civilization in western S. America.

[1]) Vol. I, p. 171.

[a] [i.e. tassel-making. - Au/rst]

[b] [i.e., tassels. - Au.]

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5
Mataco SI7

Weaving.

A C 286 The tribes from whom I have made collections on my journeys all know how to weave, with the probable exception of the Siriono. There are in S. America a number of Indians who do not weave. Among these are the Tierra del Fuego tribes and some Gês-peoples.

Many of the Indian tribes I have visited only weave bands. Such are the Chacobo, Huanyam, Huari and Yuracáre. Weaving with ornamental borders (Fig. 27) is only found in the Chaco, and it is evident that weaving among those tribes is on a much higher plane than among the tribes north of Sta. Cruz de la Sierra. This is plainly due to the influence of the mountain civilization to the west. Specimens of weaving with these borders are in my collections from the Choroti, Ashluslay, Chané, Mataco, Quichua and Aymara. They are widely met with in the old excavations in Peru. Among Indians now living I know of such fabrics among the Mbayá[1]) and the Lengua[2]), besides the tribes mentioned here. This is manifestly an element of civilization received by the Choroti and Ashluslay from the old area of civilization in the west.

It is remakable that we find in the Chaco, too, among the (2) Ashluslay bands woven according to the Kelim technique with open slits (Fig. 64). Otherwise this technique is not known among Indians now living in S. America, but only from the (A) old area of civilization in the west. (Map 38).

I have no loom in my collection from the Choroti or Ashluslay. From the latter tribe I photographed one which I had not the opportunity of acquiring[3]).

M 286 From the Mataco, who are closely connected with these tribes, I have several looms of which two distinct types are here illustrated. As we see, the warp is drawn differently in each of these. In the loom (Fig. 63) the warp-threads run

[1]) Boggiani, fig.
[2]) Grubb, fig.
[3]) See »Indianerleben», fig. 52.

[text continues on p. 208]

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

Map. 38. The Distribution of the Kelim Technique with Open Slits.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti
MATACO SI7

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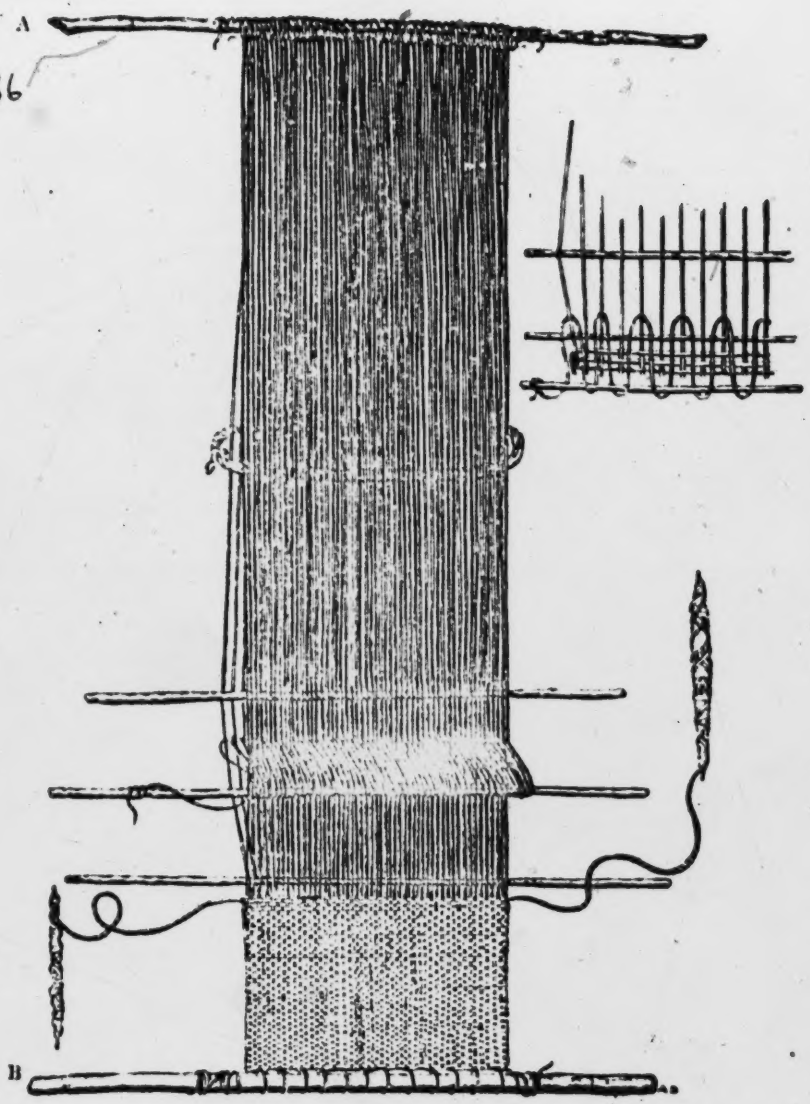
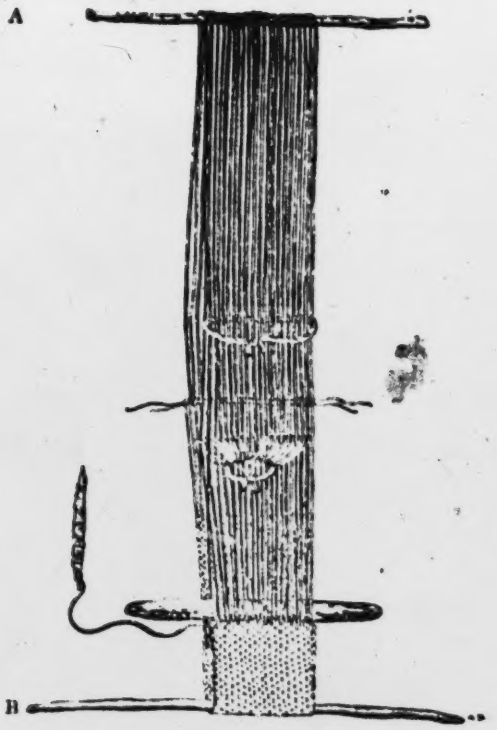


Fig. 62. Loom. Mataco R. M. (M. 1231). The warp in the diagram somewhat shortened. Full length of the loom 2.21 metres.

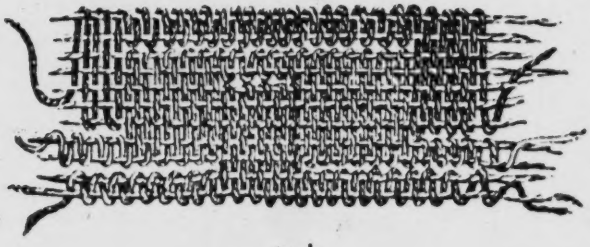
2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti
Mataco SI7
Ashluslay SK5

A
M
286



63.

64 a.



64 b.

Fig. 63. Loom. Mataco R. M. (M. 1230). The warp in the diagram somewhat shortened. Full length of the loom 1.33 metres.

» 64 a. Band woven in the Kelim technique with open slits. Ashluslay.

» 64 b. Enlargement of a.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti
Mataco SI7

M 286 round the pins A and B so that the fabric takes the shape of a ring when complete. The warp was drawn thus in the Ashluslay loom I saw, and this is also the case in some looms of the Chané and Chiriguano and in all the looms of the Yuracáre, Chacobo and Guarayú (Pauserna). I have looms from the tribes named in my collections. MAX SCHMIDT[1]) has described a loom of the same type from the Paressi-Kabiši, and, according to the same author, this kind of loom is also found among the Arawaks on the Rio Negro and among the Tereno Indians. MAX SCHMIDT writes of this type of loom: »After my late experiences among the Paressi-Kabiši I am more and more of the opinion that we must consider the type of loom in question to be an appurtenance of the old Arawak civilization which, as the latter progressed, passed on to more primitive tribes.» The fact that such looms, as far as I know, have not been found in Peru[2]) corroborates this view, as also the fact of their occurrence in N.E. Bolivia, where most of the Peruvian culture-elements occurring in the Chaco are wanting[3]). The introduction of this type of loom from whites or negroes appears to me quite out of the question.

It is also used by the Lengua[4]). We know that the Arawaks in the Chaco, formerly at least, were great weavers, from the accounts of old authors[5]).

The loom depicted in Fig. 62, on the other hand, is exactly like the Peruvian loom which MAX SCHMIDT has de-

[1]) (4) p. 214.

[2]) See looms: MAX SCHMIDT (6) and CRAWFORD.

[3]) Looms from present-day Indians in S. America, judging by the few comparisons made by Max Schmidt, would seem to be uncommon in the Ethnological Museum of Berlin. And I suppose the same holds good for most museums.

[4]) GRUBB, Pl. on Page 66.

[5]) »Las Guanas son las principales hilanderas y tejedoras de sus bellas mantas». Aguirre, p. 478.

[Text continues on p. 211]

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

Fig. 39. The Distribution of Earthenware Vessels with Handles.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti
Ashluslay SK5

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Fig. 63. Types of the earthenware vessels of the Ashluslay, showing the varying shape of the pottery of this tribe.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Mataco SI7
Ashluslay SK5
211

picted from Pachacamac[1]). In my travels I have only seen it among the Mataco.

I am sorry I do not possess in my collections a loom with half-complete fabric with ornamental borders, nor a half-complete band in the Kelim technique. Since the »Arawak» loom is universally found in the Chaco, I think it more likely that the Choroti and Ashluslay originally learned the art of weaving from the Arawaks (Chané) than that it passed on to them from the mountain civilization. It is, however, certain that their weaving industry developed under the influence of the Mountain civilization.

Pottery.

All the tribes I have visited on my journeys possess earthenware vessels made by themselves, except the Chána and the Tambopata-Guarayo, who are identical with or nearly related to them. PATER SCHMIDT[2]) mentions the following tribes as not having any pottery: — Kayapó, Botokudo, Ona, Yahgan, and Alikuluf. The Tehuelche no longer have any pottery, though they had formerly. With the exception of the last-mentioned it is, therefore, only the lowest tribes who are without pottery. The absence of pottery among the Tehuelche is due to their life being so bound up with that of the horse; fragile earthenware is unsuitable for an equestrian people.

The Chaco tribes here dealt with build up their earthenware vessels in layers out of clay ropes[3]). This method of shaping the vessels I have seen among the following tribes: — Choroti, Mataco, Ashluslay, Chiriguano, Chané, Quichua-Mestizos and Huari; and this is the usual method everywhere in S. America where the pottery is uninfluenced by white civilization. PATER SCHMIDT[4]) mentions this method from several tribes in different parts of S. America. The

[1]) (6), p. 7.
[2]) p. 1024.
[3]) See »Indianerleben», p. 122.
[4]) p. 1017.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

A
C
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vessels are polished with wooden tools, specially made for this purpose, and sometimes also with the tails of the Tolypeutine armadillo[1]).

The Chaco Indians make earthen vessels of a good many shapes (Fig. 65). Of these they have got one at least from the mountain civilization, viz., the waterpot. (Fig. 45). I have, however, already dealt with this in other connections (See above, page 146).

A good many of the earthen vessels of the Choroti and occasionally of the Ashluslay also are provided with handles (Fig. 65). The distribution of vessels of this kind indicates that the handle is an invention which the Choroti and Ashluslay have obtained from the Indians of the western area of civilization.

080

I have found earthenware vessels with handles (Map 30[2]) at Sumaipata in the neighbourhood of Sta Cruz de la Sierra, at Caipipendi in the district of the Chiriguano Indians, at Caflegua in N. Argentina, in the excavations on the border of Peru and Bolivia, in the San Francisco valley in N. Argentina, at Incallacta and in the Mizque valley between Cochabamba and Sta. Cruz de la Sierra, in the old dwelling-places on the upper Rio Pilcomayo, and at Covendo on the Rio Beni.

On the other hand handles are wanting on the vessels I found in mounds at Mojos, at Guarayos, and in the ancient dwelling and burial grounds on the Rio Guaporé and the Rio Machupo.

A
C
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In the following table we see which of the present-day Indian tribes visited by me have got handles on their earthenware vessels. The table also indicates which of these Indians paint their vessels and which of them employ finger-print ornamentation.

[1]) Tolypeutes conurus.

[2]) The shaded area as well as the numbers on the map show the distribution of the handle in S. America.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

A
c
323

	Number on the map.	possess earthenware vessels	finger-print ornamentation.	painted vessels.	handles on vessels.
Ashluslay	(2)	+	—	+[1]	+
Atsahuaca		+	—	—	—
Aymara	(19)	+		+	+
Cavina	(58)	+	—	+	—
Chacobo		+			
Cháma					
Chané	(5)	+	+	+	+
Chimane		+			
Chiriguano	(4)	+	+	+	+
Choroti	(1)	+	—		+
Guarayú (Mission)		+	—	—	—
Guarayú (Pauserna)		+	—		—
Huanyam		+	—		—
Huari		+	—	—	—
Mataco	(6)	+	+	+[1]	+
Quichua	(18)	+	—	+	+
Siriono		+	—	—	—
Tambopata-Guarayo		—	—	—	—
Tapiete	(3)	+	—	+[1]	+
Toba	(7)	+	—	+[1]	+
Tsirakua		+	—	—	—
Yamiaca		+	—	—	—
Yuracáre	(22)	+	—	+	—

Handles on earthen vessels are found everywhere in N. Argentina in the district of the Diaguita[2]), in the (H) province of Buenos-Aires[3]), in San Juan[4]) and La Rioja[5]), in the (t)

[1]) painted only after burning.

[2]) Ambrosetti, Boman, Lafone Quevedo, Outes and other works.

[3]) Ameghino, Vol. I, p. 203, Pl. 7.

[4]) Debenedetti, (4), p 66, 102, 103 etc.

[5]) Debenedetti (5) Fig. 6 and 7.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay - SK5

000 Valle del Rio Chubut[1]), in the (O) Rio Parana[2]), in the (N) upper Rio Parana[3]), in all the old Inca country[4]), also in Ecuador[5]), in S. Chili[6]), in Cundinamarca[7]), and Cauca[8]), and at Sta. Marta in Columbia[9]), on (P) Aruba island[10]) on the (S) island of Trinidad[11]) and at (R) Lago Tacarigua[12]).

Besides the above mentioned tribes we find, among present-day Indians earthen vessels provided with handles among the tribes of (48) N. W. Brazil[13]), the (54) Guahibo[14]), the Köggaba[15]) Motilones[16]) Goajiro[17]), the Arawaks[18]) on the coast of Guiana, the Araucanians[19]) and the (8) Lengua[20]).

In addition there are some tribes who have quite lost their primary civilization, e. g. the Mojo. The pottery in the archeological excavations at Mojos is, as already mentioned, without handles.

A C 323 531 When ornamenting their earthen vessels the Choroti and Ashluslay never paint them before burning, but the latter sometimes do so afterwards. On some vessels there is plain

1) Outes y Bruch (5), fig. 115.
2) Torres (2), p. 88.
3) Mayntzhusen, p. 466. (rare).
4) Uhle, Seler, Reiss u. Stübel and other works.
5) Uhle, do.
6) Photo. G. M.
7) Uhle (I), Pl.
8) Uhle (I), Pl.
9) G. M. Bolinder's collection.
10) Josselin de Jong, Pl. 21, 13, 14 15, etc.
11) De Booy, Plate 5 a.
12) Marcano, p. 55. Pl. 12, Fig. 39. p. 57, Pl. 15. (Handle small and rare).
13) Koch-Grünberg (2), Vol. 2, p. 224.
14) Stradelli, p. 31.
15) Bolinder (4), p. 130.
16) Bolinder (2), p. 39.
17) Candelier, p. 267.
18) Ten Kate, p. 107 • Waar men aan kruiken, kommen enz. hengsels of ooren vindt, moet men aan Europeesch namaaksel denken. •
19) Latcham (1), p. 340.
20) Grubb, Pl. p. 74.

[Text continues on p. 217]

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

Map 40. The Distribution of Finger-print Ornamentation on Earthenware Vessels.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti
Mataco SI7

323
531
516
291

Fig. 66. A. Mataco-Vejos woman impressing a finger-print ornament on the rim of an earthenware vessel.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

ornamention executed by means of the wooden tools used for polishing. Among the Choroti and Ashluslay I have seen no clear finger-print ornamentation. On the other hand this is not uncommon among the Mataco-Vejos, the Mataco who dwell in immediate contact with the Chané, who often embellish their pottery with such ornaments.

On the Choroti vessels and still more frequently on those of the Mataco the clay-coils themselves are sometimes retained as ornaments.

The distribution of finger-print ornamention (Map 40 Fig. 66) differs altogether from that of the handle. While the handle is an element of civilization which evidently came to the Chaco from the mountain civilization, finger-print ornamentation came from the east, probably from the Guarani Indians.

I have indicated in the table the tribes among whom I have seen this kind of ornamentation. In my archaeological excavations I have found[1]) such ornamentation at (ö) Tarupayu near the upper Rio Pilcomayo, at (o) Incahuasi between the Rio Parapiti and the Rio Grande in S. Bolivia, and in the province of (e) Sara not far from Sta. Cruz de la Sierra.

AMEGHINO[2]) mentions this ornamentation from the province of (H) Buenos-Aires, OUTES[3]) from (p) San Blas, not far from Bahia Blanca in Argentina.

MEYER[4]) from (q) Laguna in Sta. Catharina in S. Brazil, TORRES[5]) from (r) Entre Rios, KUNERT[6]) from (S) Rio Grande do Sul (Region de Cahy and Forromecco), and GRUBB[7]) from (f) the country of the Lengua Indians.

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[1]) NORDENSKIÖLD (10), Figs 19—22.

[2]) Vol. I Pages 280—291, Pl. 6.

[3]) (4), p. 267, fig. 35.

[4]) P. 340.

[5]) (1), fig. 3.

[6]) P. 33.

[7]) GRUBB, p. 73. »Broken pieces of old pottery have been found bearing scorings, as if made by the pressure of the thumb, and are said to be the work of spirits.«

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

Ornamentation of this kind is found, too, on earthen vessels from (N) Alto Parana[1]), the vicinity of Bompland, Missiones in N. Argentina[2]). KISSENBERTH'S[3]) discovery of this form of ornamentation on potsherds which he found near the Dominican mission (g) of Conceiçao do Araguaya is extremely interesting. They are probably relics of the migration of the Tapirapé Indians. These Indians are Guarani and were possibly driven from the coast to their present district owing to the slave raids of the Portuguese.

Occasionally pottery is found in other parts of S. America sporadically with fingerprint ornamentation on the rim of the vessel. Typical finger-print ornamentation, however, is only found in the parts indicated on the map.

The Ashluslay do not paint their pottery before but after burning. This may be due to their not having in their country the colouring materials requisite for painting before burning. I have not got painted pottery from the Choroti.

For colouring, the (2) Ashluslay use the resin of a tree, «palo santo».[4]) Besides these Indians and other nearly related Chaco tribes, the (7) Toba, (3) Tapiete, (8) Lengua[5]), (12) Mbayá[6]) and (11) Chamacoco[7]), I have only seen the (5) Chané use similar resin for the painting of their pottery, which painting, however, is done before burning. The latter sometimes resin the rim of a vessel after the burning, while it is still warm. There are very considerable areas of S. America where the art of painting pottery has not been understood, and is not understood to-day. In the first place the art was known to the tribes on the Andes (the shaded area on the map) as well as the Guarani tribes and the major-

[1]) KUNIKE, p. 158, fig. 90.
[2]) G. M. BACKMAN'S collection.
[3]) (2), p. 77, fig. 26.
[4]) Bulnesia Sarmienti.
[5]) GRUBB, p. 73.
[6]) COLINI, p. 314.
[7]) K. v. d STEINEN (4), p. 325.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

ity of the Arawaks. Thus, the Chacobo, Huanyam, Huari and Guarayú (Pauserna) have no painted earthenware.

I have sought to indicate on the map 41[1]) the places where painted earthenware has been found, or is still in use. The latter is the case among the (54) Guahibo[2]) in Venezuela, many Indian tribes (48) in N. W. Brazil[3]), the (X 6) Catuaui-xi[4]) and Jaminâua[5]) on the Rio Purús, the (61) Menimehe on the Rio Yapurá[6]), (34) Jivaro[7]) (3 D) Cocama[8]) (46) Conibo[9]) (33). Campa[10]), (60) Apiacá[11]) on the Rio Tapajos, (59) Chrichaná[12]), the (55) Indians in the coast-lands of Guiana[13]), the Araucanians[14]), (17) the Abipone[15]) the (X 4) Payaguá[16]), and the (28) Indian tribes on the Rio Xingú[17]).

STADEN mentions painted pottery from the (38) Cario (Tupinambá), GASPAR DE CARVAJAL from (X 7) the Indians on different parts of the Amazon.

In my archaeological excavations I have found pottery painted before burning at (M) mounds in Mojos in N. E. Bolivia, in the valley of San Francisco, and everywhere in the mountain districts, i. e. in the valleys of the Andes, where alone I have done any digging.

[1]) The shaded area and the numbers show the distribution of painted pottery in S. America.
[2]) STRADELLI, fig. 16.
[3]) KOCH-GRÜNBERG (2), Vol. 2, p. 224.
[4]) CHANDLESS, p. 95.
[5]) STEGELMANN, p. 137.
[6]) WHIFFEN, p. 95.
[7]) RIVET (1), p. 44 (588).
[8]) RATZEL, Pl. p. 477.
[9]) S:t Crieq. p. 278.
[10]) GRANDIDIER, p. 141.
[11]) KOCH-GRÜNBERG (6), p. 359.
[12]) BARBOSA RODRIGUES, p. 151.
[13]) IM THURN, p. 277.
[14]) LATCHAM (1), p. 410.
[15]) DOBRIZHOFFER, Vol. 2, p. 131.
[16]) AZARA, (I), Vol. 2, p. 120.
[17]) K. VON D. STEINEN (3), p. 276.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6

Map 41. The Distribution of Painted Earthenware.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

Pottery painted before burning has been found in the greater part of the high ground of Columbia, in the whole area of the old Incan empire, in the whole of northern and central Argentina, on the (O) lower Rio Parana[1]), on the (N) Alto Parana[2]), in (l) São Paulo[3]), at (q) Laguna in S. Brazil[4]), in (s) Rio Grande do Sul[5]), in the neighbourhood of (a) Rio de Janeiro[6]), on (c) Marajó Island[7]), in (d) Counany in Brazilian Guiana[8]), on the (S) Island of Trinidad[9]), and on the (p) islands of Aruba and Curaçao[10]).

To distinguish the source of the extremely simple ornamentation sometimes painted on the earthenware of the Choroti and Ashluslay Indians is, I think, now impossible. For my part I deem it probable that it is a clumsy imitation of that which they have seen more advanced tribes, perhaps the Chané and Chiriguano, paint on their earthenware.

Wood-carving.

As regards the making of wooden articles by the Choroti and Ashluslay, I have no further information of anthropogeographical interest to give beyond what was said above.

Articles made from bones and snail and mussel shells.

The Choroti and Ashluslay have a whole series of articles made of bones and snail and mussel shells. Respecting their manufacture, I have nothing of anthropo-geographical interest to say.

[1]) Torres (2), p. 92, p. 108.
[2]) Mayntzhusen, p. 466; Kunike, p. 159.
[3]) v. Ihering (3), Pl. 23, fig. 31.
[4]) H. Meyer, (2), p. 340.
[5]) Region de Cahy and Porromecco, Kunert, p. 33. According to Kunert these are post-Columbian.
[6]) Netto, p. 412.
[7]) Netto, Pl. I, etc.
[8]) Goeldi, numerous illustrations.
[9]) De Booy, Pl. 8, etc.
[10]) Josselin de Jong, numerous illustrations.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

A C 321 401

The Choroti and Ashluslay understand how to bore through teeth and mussel-shells. For this purpose they now use drills, made of darning-needles provided with a handle, which they obtain from the whites. The art of drilling holes in bone must be very ancient in S. America, being certainly known to every Indian tribe. The Tierra del Fuegians, however, seem not to possess necklaces of drilled teeth.

The carving and ornamentation of calabashes.

A C 415 322

Calabashes are extensively used in the whole of tropical S. America. They are lacking only in the extreme south of the continent and among some Gês-tribes who are quite uncivilized. Even up on the Andes the Indians often have calabashes which they get from the valleys on the eastern slopes of these mountains. Calabashes have been found in old excavations in the Puna de Jujuy[1]) where they cannot be cultivated. During his archaeological excavations at Calama in Puna de Atacama UHLE[2]) found numerous calabashes. He believes that the Indians there received them from Argentina.

The Choroti and Ashluslay have no tree calabashes, but use the fruit of a cucurbitaceæ which they cultivate. From these they make boxes, large bowls, etc.

Fig. 67. Calabash box with lid. R. M. (A. 1304). 1/4.

They often provide these boxes with lids which are not infrequently carved in the shape of a star. They are made in the manner described by SÁNCHEZ LABRADOR[3]), speaking of

[1]) LEHMAN-NITSCHE (1).
[2]) (5), p. 109.
[3]) Vol. 1, p. 271.

[text continues on p. 224]

Map 42. The Distribution of Calabashes with Lids

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

A C 415 327 the Mbayá:— «Labran una especie de calabazos grandes sacandoles con delicadeza un pedazo por el pezon que despues ajusta como tapa», — e. g. *the lid and the calabash-box are always from one and the same fruit.*

A C [531] The calabashes are frequently ornamented, sometimes by burning, sometimes by cutting. Should a large calabash crack, the Choroti and Ashluslay generally mend it by sewing together the edges. (See Fig. 68).

Calabashes with lids of this kind (Fig. 67) are found among the (18) Quichua[1]), (4) Chiriguano[2]), (6) Matacos[3]).

000 (X 4) Payaguá[4]), (12) Mbayá[5]), Kadiuéo), (8) Lengua[6]), (8) Angaité[7]), (21) Cainguá[8]), and (36) Ijca[9]) as well as the (2) Ashluslay and (1) Choroti.

Furthermore, calabashes with similar lids (Map 42) are mentioned from excavations in (D) ? the Puna de Jujuy[10]), from (A) the coast of Peru[11]), from (y) the neighbourhood of Cuzco[12]), and from (G) Capanitas in the borderland of Peru and Bolivia[13]). We see that the distribution in S. America of lids of the kind here described is in the west Plainly we have to do with a cultural element which the Chaco Indians have derived from the western area of civilization

Calabashes with lids of a rather different type are mentioned by KRAUSE from the (15) Kayapó[14]), by Kissenberth[15])

[1]) G. M. 15. 1. 87.
[2]) G. M. 15. 1. 144.
[3]) R. M. (M. 1251).
[4]) M. C. (Hc. 316, H. 322 a. H. 923.)
[5]) BOGGIANI (2), Fig. 50.
[6]) GRUBB, p. 74.
[7]) M. f. V. C. (17034, Collection PRIČ.)
[8]) M. f. V. C. (613 i).
[9]) G. M. BOLINDER.
[10]) LEHMANN-NITSCHE (1), Pl. 3, Fig. 49.
[11]) REISS und STÜBEL, Vol. 3, P. 82, fig. 4.
[12]) M. f. V. B. (V. A. 8900).
[13]) NORDENSKIÖLD, (3), S. 24. R. M. (06. I. 408.)
[14]) Fig. 215.
[15]) (1), fig. 1.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

Map 43. The Distribution of Calabashes with Pyrograving.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

from the (5X) Canella, and KOCH-GRÜNBERG[12]) from the (48) Yahúna, Rio Apaporis.

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Calabashes with encaustic ornamentation (Map 43) are rare among the Ashluslay, somewhat more common among the Choroti, and very common among the Mataco. They are found among the Toba and, very generally, among the Chiriguano and Chané. They are quite wanting in the tribes I visited in N.E. Bolivia and the adjacent country, although some of these tribes, e. g. the Guarayú (Pauserna) have got richly ornamented calabashes.

Calabashes with encaustic ornamentation are also known from the (14) Bororó[2]), (20) Paressi-Kabíši[3]), (28) Bakaïrí[4]) and other tribes on the upper Rio Xingú, (13) Karajá and (50) Šavajé[5]) (21) Cainguá[6]), (29) Caingáng[7]), (41) Šokleng[8]), the Indians of (09) Chachapoya[9]), Peru, (47) Arecuna[10]), (47) Makusi and Wapischana[11]), the Indians on the Rio Pichis, Rio Ucayali[12]) (33) Campa[13]), (48) Tariana[14]), and (48) Arapaso[15]) (on the Cairáy Uaupés).

In Peru, Argentina and Chile calabashes graven by fire have been frequently discovered, e. g. at (B) Arica[16]), (A)

[1]) (2), Vol. 2, fig. 197.
[2]) M. f. V. C. (17069). Frič Collection.
[3]) MAX SCHMIDT (4), p. 223.
[4]) MAX SCHMIDT (3), fig. 227-230.
[5]) KRAUSE, p. 280; M. f. V. L.
[6]) M. C. (IIc. 054).
[7]) M. C. (IIc. 012).
[8]) M. f. V. B. (V. B. 4474).
[9]) UHLE (1), Vol. 2, Pl. 4, fig. 11.
[10]) M. f. V. B. (V. A. 01234).
[11]) M. f. V. B. (11, 17:57-58; 11, 17:29).
[12]) M. f. V. B. (V. A. 10882). **(not marked on the map)**.
[13]) M. f. V. B. (V. A. 10883).
[14]) M. f. V. B. (V. B. 0500).
[15]) M. f. V. B. (V. B. 5035).
[16]) UHLE (1), Vol. 1. Pl. 25, fig. 19.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

Ancon [1]), (K) Trujillo [2]), (y) Cuzco (Paucartambo [3]), (G) Quiaca [4]), (C) Calama [5]), (E) La Paya [6]) and in (F) San Juan [7]).

In some parts the Indians may have learnt the encaustic ornamentation of calabashes from whites and negroes. It is evident, however, that this kind of ornamentation *mainly occurs in the west of S. America*, and I deem it in the highest degree probable that the Chaco Indians took over the art of pyrograving from the western area of culture.

The question arises whether this process of ornamentation did not originate in a district where the people had at their disposal metal implements by means of which figures might easily be burnt into wood or similar material.

Among the Choroti and Ashluslay in the Chaco pyrograving is performed on whistles and cases, as well as on reed flutes.

Calabashes with engraved ornamentation are distributed over a very wide area. I will only mention here the tribes among whom I have myself seen them:— viz. the Choroti, Ashluslay, Mataco, Toba, Tapiete, Tsirakua, Chiriguano, Chané, Churápa, and Yuracáre.

The calabashes of the Choroti and Ashluslay Indians are never painted, nor are they blackened inside, like the calabashes of the Guarayú and many other tribes.

As regards the ornamentation itself, I do not venture to assign any particular quarter as its source. It may possibly be an imitation of the ornaments on the calabashes of more civilized tribes. I am not able, however, to adduce any proof of this.

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[1]) Reiss und Stübel, Vol. 3, Pl. 82.
[2]) M. C. (O. D. I. c. 249).
[3]) M. f. V. B. (V. A. 8900)
[4]) Nordenskiöld (3), p. 29, R. M. (09. 1. 434).
[5]) Uhle (5), p. 109.
[6]) Ambrosetti (6), p. 523.
[7]) Debenedetti (4), p. 64, fig. 35.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay

A C [415] 000 When a small crack appears on a large and valuable calabash, the (1) Choroti and (2) Ashluslay, as was mentioned, mend it by sewing the edges together. Calabashes sewn together in like manner (Map 44) are also found among the (6) Mataco, (4) Chiriguano,(22)Yuracáre[1]) and the(28) Indians on the Rio Xingú[2]). On the other hand, I have never seen mended calabashes among any of the tribes I visited in N. E. Bolivia.

The National Museum at Stockholm possesses a calabash from the excavation field at (A) Ancon[3]) on the Peruvian coast which has been mended by sewing together the

Fig. 68. Piece of a calabash mended by sewing. Mataco. R. M. (M. 170). 1/4.

sundered edges. There is another in the Gothenburg Museum from the (36) Ijca in Columbia[4]). Probably the sewing together of calabashes is an idea obtained by the Chaco Indians from the mountain civilization. In the Chaco it is the large calabashes, hard to replace, which are thus mended. Of the mended calabashes I collected from the Chiriguano there are, characteristically enough, tree calabashes which do not grow in their country, but are imported from the Sta Cruz district. The idea of mending calabashes must certainly have arisen in a tract where calabashes either were not cultivated at all or, if cultivated, only with difficulty.

[1]) Not marked on the map.
[2]) K. v. d. Steinen (3), p. 241.
[3]) Stolpe's collection. (R. M. 21, 130).
[4]) G. M. Bolinder's collection.

Map. 44. The Distribution of Calabashes mended by sewing.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

being thus rare objects, as e. g., on the table-lands of the Andes. One calabash which the Mataco-Vejos[1]) have mended was obtained by them originally from the Chané. It is beautifully ornamented and thus, probably, appeared to them more valuable than their own calabashes. It was therefore considered to be worth the trouble of mending.

Feather-work.

There is one small work[2]) on different kinds of feather-technique in S. America. It is not, however, full enough to give information as to the distribution of different forms of this technique. Nor am I in possession of sufficient data of comparison to be able to draw a map showing the distribution of the different methods of binding feathers.

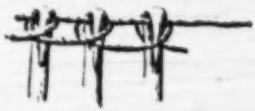

Fig. 69. Illustration showing how the feathers are bound in a footband.

From fig. 69 we see how feathers are bound by the Ashluslay and Choroti into footbands (ankle-ornaments), girdles and the like. It is usual, also, to bind ostrich feathers quite simply around a string. The footbands are partly made in this wise.

In the Chaco it is not uncommon to sew feathers on to cloth. Among the Indians I have visited elsewhere in S. America, I am not aware of this custom. In ancient Peru feathers were often sewn on to mantles, etc.

A peculiar custom among the Indians of the Chaco — the Choroti and others — is that of cutting notches out of the feathers in their brow-bands exactly like some of the North American Indians. In S. America I only know the custom from

[1]) R. M. (M. 1048).
[2]) Mead (2).

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

other Chaco tribes and from Guiana[1]). As regards the Chaco this custom is mentioned by SÁNCHEZ LABRADOR from the Mbayá[2]).

A C 287 301

Leather-making.

The Choroti and Ashluslay do not understand the art of tanning. They show skill, however, in making leather soft by scraping. I did not observe any point of anthropogeographical interest in their method of preparing leather.

A C 281

[1]) GOEJE (1), Pl. 3. 1. 2. Ojana.
[2]) Vol. 1, p. 214.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XXVIII.

The Influence of the Whites on the Material Culture of the Ashluslay and Choroti.

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In the foregoing I have given an account of the material culture of the Choroti and Ashluslay Indians, and of the geographical distribution over the rest of S. America of elements of civilization characteristic of these tribes. In what follows I intend, in continuation of the above exposition, to bring together in tabular form such culture-elements as plainly have a common origin, beginning with those which the Indians of the Chaco have received from the whites. Such things as tools, clothes, etc., acquired by the Indians from the whites are not included, but only those of which they got the idea from white men. In addition, there are domestic animals and some cultivated plants which have come to them from the same quarter. We will, then, first try to skim off the most recent layer, as it were, of the civilization of the Choroti and Ashluslay Indians.

The positive influence of white culture is, generally speaking, greater in those parts where the Indians live far away from the whites, than in in those where they live in direct dependence under the white man. Thus, the Ashluslay, who have preserved their independence, carry on ranching on a large scale, while some Mataco tribes, almost entirely dependent, have no cattle at all. Up to quite recent times the Ashluslay were[1]) in the happy position of being

[1]) At least they were so as late as A. D. 1908—1909.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

able to derive advantages from the whites without falling into irretrievable poverty.

Domestic animals and things connected with them are of course the most important contributions received by the Choroti and Ashluslay from the whites.

Otherwise, the cultural life and the handicrafts of the Choroti and Ashluslay Indians have been little influenced by the whites, i. e., when one thinks solely of positive and not of negative influence.

Table I.

Elements of culture received by the Choroti and Ashluslay from the whites

1)	Dwellings	—
2)	Beds	—
3)	Cultivated plants and agricultural tools.	
	Water melons	+
4)	Implements used in harvesting wild plants	—
5)	Hunting weapons and implements.	
	Pellet bow. (Fig. 8. Map 5)	+?
6)	Weapons never or seldom used for hunting	
7)	Fishing tackle	—
8)	Domestic animals and articles connected with them	
	Horse	+
	Cattle	+
	Goat	+
	Sheep	+
	Poultry	+
	Cats	+
	Spurs	+
	Saddle	+
9)	Tools	
	Tools made of pieces of old iron (Indian work)	+
	Handles of iron tools. (Indian work)	+
10)	Implements for making fire.	
	Tinder-box for flint and steel	+

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

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11) Hearth and its accessories ..... —
12) Utensils used in the preparation and consumption of food
a) in preparing meal ..... —
b) Cooking pot ..... —
c) Spit ..... —
d) Vessels holding food to be eaten ..... —
e) Implements with which to eat. Horn spoon +
13) Means of indulgence and articles in connection .. —
14) Clothes ..... —
15) Articles connected with the deforming of the body —
16) Tattooing instruments ..... —
17) Ornaments for the body, etc ..... —
18) Toilet articles ..... —
19) Implements for carrying burdens ..... —
20) Articles for keeping things in ..... —
21) Games and playthings..... —
22) Signalling and musical instruments etc
Musical bows ..... +
Trumpets of cowhorn ..... +
23) Trophies ..... —
24) Property marks .....
25) Various handicrafts ?
a) Rope and string manufacture and spinning —
b) Sewing or the use of an eyed needle ..... —
c) Knitting and plaiting
d) Twisting of ropes and string..... —
e) Weaving ..... —
f) Pottery ..... —
g) Wood carving ..... —
h) Bone and shell bead work ..... —
i) Carving and ornamentation of calabashes.. —
j) Feather work ..... —
k) Leather work ..... —

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

XXIX.

The Influence of the Mountain Civilization in the Gran Chaco.

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Having given some account of the cultural influence of the whites in the Chaco, I will now bring forward the culture-elements which the Choroti and Ashluslay, as was explained above, seem to have received from the mountain civilization, i. e., the Bronze Age civilization of western S. America. The western influence did not bring about any revolution in the civilization of the Chaco tribes, but it brought them a very considerable addition.

Table 2.

Elements of culture received by the Choroti and the Ashluslay from the mountain civilization. + = +

1)	Dwellings	—
2)	Beds	—
3)	Cultivated plants and agricultural tools	
	Spades (Map 1)	+
4)	Implements used for harvesting wild plants	—
5)	Hunting weapons and inplements.	+?
6)	Weapons seldom or never used for hunting.	
	Knuckledusters (Map 6)	+
	Clubs with outstanding head	+
7)	Fishing tackle	—
8)	Domestic animals and articles in connection with them	—

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

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9) Tools.
Wooden knives (in the form found among the Choroti and Ashluslay) ..... +
Toothed scrapers of wood ..... +

10) Tools for making fire ..... —

11) Hearths and their accessories.
Feather fire-fan. (Map 9) ..... +

12) Utensils used in the preparation and consumption of food.
a) In the preparation of meal ..... —
b) Cooking pots ..... —
c) Spits ..... —
d) Vessels holding food to be eaten: wooden bowls. (Map 12) ..... +
e) Implements with which to eat: wooden spoons. (Map 13) ..... +

13) Means of indulgence and articles thereto appertaining —

14) Clothes
Poncho ..... +
Shirt. (Map 16) ..... +
Woven girdle ..... +
Sandals. (Map 17) ..... +

15) Articles connected with the deforming of the body —

16) Articles connected with tattooing ..... —

17) Ornaments for the body .....
Threadcross (Map. 22) ..... ?
Shell-beads .....
The custom of making spangles of shell-beads (Map. 20) ..... +
Tassels on bands and clothes ..... +
Browbands (woven). (Map 21) ..... +
Netted hoods. (Chaco type) ..... +

18) Toilet articles.
Stick combs (in the form found among the Choroti and Ashluslay) +
Wooden combs ..... +

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

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19) Implements for carrying burdens: Earthen vessels carried by a string. (Fig. 4[illegible]) ..... +
20) Articles used for keeping things in ..... —
21) Games and playthings
    Games of chance in general (Map 27)..... +
    Tsúka game ..... +
22) Signalling and musical instruments etc.
    Skin drum and drumstick (Map 30) ..... +
    Long wooden whistle (Fig. 53) (Map 32).... +
    Round wooden whistle (Map 33)..... ?
23) Trophies. ..... —
24) Family marks. (Map 34)..... ?
25) Various handicrafts.
    a) Rope and string making and spinning.
       Bakaïrí spindle. (Map 35) ..... +
    b) Sewing or the use of the eyed needle. (Map 36) ..... +?
    c) Knitting and plaiting.
       Technique 5 (Map 37)..... +
    d) Rope and string making.
       Fine rope twisting..... +
    e) Weaving.
       Ornamented borders on fabrics ..... +
       Kelim technique. (Map 38)..... +
    f) Pottery
       Painting of earthen vessels ..... —
       Handles on ditto (Map 39) ..... +
       Waterpots ..... +
    g) Wood carving ..... —
    h) Bone and shell-bead work..... —
    i) Carving and ornamentation of calabashes
       Calabashes with lids. (Map 42) ..... +
       Encaustic ornamentation[a] of calabashes (Map 43) ..... +
       Sewing of cracked calabashes. (Map 44) .. +

[a] [i.e. pyrograving. – Analyst]

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5
Chaco Indians SK4

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j) Feather work ..... —
k) Leather work ..... —

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From this we see that the influence of the mountain civilization in the Chaco has been very considerable. It is manifest, from the maps and from the facts adduced by me in the following, that nearly all the culture elements derived from the mountain civilization are lacking in most of the tribes of N. E. Bolivia. In that district, practically, only the Yuracáre possess these elements of culture.

An exception is afforded by the shirt, the distribution of which, however, has most certainly been considerably extended by missionaries in post-Columbian times.

The Chiriguano and the Chané possess sundry of the culture-elements common to the Choroti, Ashluslay and the mountain civilization. The Chané have certainly dwelt long in the tract they now occupy, while the Chiriguano, as mentioned above, as late as the opening of the 16th century, emigrated from the district around the Rio Paraná to the foot of the Andes. Thanks to the interchange of ideas and customs which has since taken place, the Chané and the Chiriguano have now a very similar cultural standpoint. We may presume that it is through the mediation of the Chané that the Chiriguano received certain culture-elements from the mountain civilization[1]).

The following table may serve to illustrate the above.

[1]) The Chiriguano may surely be reckoned among the tribes whose cultural level has been raised by the kidnapping of women. When they conquered the territory now inhabited by them, they seized the women of tribes possessing a higher form of civilization. Undoubtedly, they kidnapped large numbers of Chané women. Significantly enough it is pottery and weaving, i.e. chiefly female handicrafts, which have attained the highest pitch of development. The Guarayú, who emigrated at the same time as the Chiriguano to the tract they now inhabit, had not the same opportunities of raising their cultural level by the kidnapping of women, whence it happens that the material culture of the Chiriguano is considerably higher than that of the Guarayú.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti
Chaco Indians SK4

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Culture elements received by the Choroti and Ashluslay from the mountain civilization.	Yuracáre.	Chimane.	Guarayú (Pauserna).	Chámá.	Atsahuaca.	Chacobo.	Huanyam.	Huari.	Chiriguano.	Chané.
Spades	—	—	—	—	—	—	—	—	+	+
Knuckle-dusters	—	—	—	—	—	—	—	—	—	—
Club with outstanding head	—	—	—	—	—	—	—	—	—	—
Wooden knives	—	—	—	—	—	—	—	—	—	—
Toothed scrapers of wood	—	—	—	—	—	—	—	—	—	—
Feather fire fan	+	—	—	—	+	—	—	—	—	—
Wooden bowls	+	—	—	—	—	—	—	—	+	+
Wooden spoons	+	—	—	—	—	—	—	—	+	+
Poncho	—	—	—	—	—	—	—	—	+	+
Shirt	+	+	—	+	+	+	+	—	+	+
Woven girdles	—	—	—	—	—	—	—	—	+	+
Sandals	—	—	—	—	—	—	—	—	+	+
Spangles of shell-beads	—	—	—	—	—	—	—	—	—	—
Woven browband	—	—	—	—	—	—	—	—	+	+
Netted hood (Chaco-type)	—	—	—	—	—	—	—	—	—	—
Wooden comb	—	—	—	—	—	—	—	—	+	—
Earthen vessels borne on a string	—	—	—	—	—	—	—	—	—	—
Tsúka game	—	—	—	—	—	—	—	—	+	+
Skin drum	—	—	—	—	—	—	—	—	+	+
Long wooden whistle	+	—	—	—	—	—	—	—	+	+
Kelim-technique	—	—	—	—	—	—	—	—	—	—
Eyed needle	—	—	—	—	—	—	—	—	+ [1]	—
Technique 5	—	—	—	—	—	—	—	+	—	—
Handles on earthen vessels	—	—	—	—	—	—	—	—	—	+
Calabashes with lids	—	—	—	—	—	—	—	—	+	+
Pyrograving	—	—	—	—	—	—	—	—	+	+
Sewing of cracked calabashes	+	—	—	—	—	—	—	—	+	—

Of the 27 culture-elements entered in this table, and which have plainly come to the Choroti and Ashluslay from the mountain civilization, we find 17 among the Chiriguano, 14 among the Chané[2]), 6 among the Yuracáre, 2 among the Atsahuaca and 1 among the other tribes, while the Guarayú, (Pauserna) have not a single one of these culture-elements.

[1]) Only large needles which the Chiriguano use when fishing (not marked on map 36).

[2]) The fact of there being a smaller number of these culture elements among the Chané than among the Chiriguano is doubtless owing to our imperfect knowledge of their cultural position.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti
Chaco Indians SK4

177 In the following table we can see the distribution of these culture-elements among some tribes in different parts of S. America whose material civilization is well known.

Culture elements received by the Choroti and Ashluslay from the mountain civilization.	Araukanians.	Bakaïri.	Karajá.	Caingua.	Indians in N. W. Brazil.	Indians of the Koraima country.	Jivaro.	Botokuden.
Spades	+	—	—	—	—	—	—	—
Knuckle-dusters	—	—	—	—	—	—	—	—
Club with outstanding head	—	—	—	—	—	—	—	—
Wooden knives	—	—	—	—	—	—	—	—
Toothed scrapers of wood	—	—	—	—	—	—	—	—
Feather fire fan	—	—	—	—	—	—	+	—
Wooden bowls	+	—	—	—	—	—	—	—
Wooden spoons	+	—	+	—	—	—	—	—
Poncho	+	—	—	—	—	—	—	—
Shirt	—	—	—	—	—	—	—	—
Woven girdles	+	—	—	+	—	—	—	—
Sandals	—	—	—	—	—	+	—	—
Netted hoods: (Chaco type)	—	—	—	—	—	—	—	—
Spangles of shell-beads	+	—	—	—	—	—	—	—
Woven browband	+	—	—	+	—	—	—	—
Wooden comb	—	—	—	—	—	—	—	—
Earthen vessels borne on a string	—	—	—	—	—	—	—	—
Games of chance in general	+	—	—	—	—	—	—	—
Tsúka game	—	—	—	—	—	—	—	—
Skin drum	+	—	—	+	+	+	—	—
Kelim-technique with open slits	—	—	—	—	—	—	—	—
Long wooden whistle	—	—	—	—	—	—	—	—
Eyed needle	—	—	+	—	+	—	—	—
Handles on earthen vessels	+	—	—	—	+	—	—	—
Lid on calabash	—	—	—	+	+	—	—	—
Pyrograving	—	+	+	+	+	+	—	—
Sewing of cracked calabashes	—	+	—	—	—	—	—	—
Technique 5	—	+ [1]	—	—	—	—	—	—

Most of the culture elements enumerated in this table have spread from the area of civilization in the west only towards the Chaco. Some, like the pot-handle and encaustic ornamentation are somewhat more widespread. Their origin, however, may easily be perceived from the map.

The question now arises whether still more of those culture-elements that are widely distributed over the S. Ameri

[1]) Among neighbouring tribes.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti
Chaco Indians SK4

can continent did not spring from the area of civilization in the west. Such culture-elements as the string-bag and the spindle of Bakaïrí type. They are lacking in N. E. Bolivia, like most of the culture elements which the Chaco Indians evidently received from the western area of civilization, and which are mentioned on page 239. Spindles are found among the tribes of N. E. Bolivia, too, but they are of another type (Bororó) and the way they are used differs from that of the Bakaïrí spindle. 177

As to the Bakaïrí method of spinning, FRÖDIN and I have come to the conclusion that it is younger than the Bororó method. The Bakaïrí method, at least in this part of America, had its origin in the great wool-spinning area of the Andes. Only in Incan times did the process spread thence to the coast of Peru. It may, indeed, have begun to spread eastwards at an earlier date. In N. E. Bolivia, which was shut off from the western area of civilization, an older method of spinning has been preserved[1]).

It is also interesting to note that a very primitive type of manioc-grater is used. Meal was not pounded in mortars, but on a wooden slab, or in a wooden trough with a wooden slab or a stone and, earlier, with an earthenware roller in an earthenware basin. An extremely primitive

[1]) Especially in view of these facts, I greatly desire the opportunity of making public my collections from the Yuracáre, Chacobo, Huanyam etc. in the same manner as I have dealt with those from the Choroti and Ashluslay. It would be of the greatest interest to me, with the aid of recent material, to explain the influence from northern S. America which asserted itself in N. E. Bolivia and the adjacent country. This influence I have already endeavoured to demonstrate by means of the archaeological material found by me in Mojos. (Nordenskiöld 10). It would else be extremely interesting to determine whether, from the study of the ethnographic material, an older pre-Incan influence from the western area of civilization can be proved in the case of Mojos. Archaeological discoveries made there (MAX SCHMIDT (5) NORDENSKIÖLD (14)) and the occurrence of spindles of the Bororó type in N. E. Bolivia and in the coast lands of Peru (FRÖDIN and NORDENSKIÖLD) would seem to speak for this supposition.

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177 blow-pipe is found there made of a hollowed bamboo cane. It is clear that in this part of S. America various ancient culture-elements still exist. Unfortunately, the archaeological material found in Peru has not, in general, been raised and treated in such a manner that we can say with certainty whether the elements of culture that have reached the Chaco from the west are Incan or pre-Incan. One culture-element is certainly Incan, viz, the Waterpot (Fig. 45). The counterpart (Fig. 43) of this, within the western area of civilization, is undoubtedly Incan, as UHLE has shown. I deem it probable, however, that most of the culture-elements mentioned in the table on page 239 did not spread to the Chaco until Incan times. This I conclude from the fact of their not being widely distributed in the eastern part of S. America. Still, it is possible that my supposition is a mistaken one.

Respecting some elements of culture, it is not possible to say whether the Indians received them from the mountain civilization, or if they are derived from a primitive form of culture common to both the mountain area of civilization and the Indians of the Chaco. Culture elements of this kind are the sling, the bola, and the carrying-net.

Whence the Indians in the western area of civilization themselves received the culture-elements which I hope I have shown that the Choroti and Ashluslay received from them, is a problem which I will not even attempt to deal with here. It can only be solved by systematic comparative studies in the civilization of the South and Central American peoples. This work, however, has hitherto not been taken in hand.

It has long been suspected that the Chaco Indians have been culturally influenced by the mountain culture of the west, though no one has attempted to deal with this problem in a really systematic way. SÁNCHEZ LABRADOR tells us that the Mbayá, according to their own tradition, came from the west, and he adds:— «y acaso por esta tierra vendrían

2: Nordenskiöld E-5 (1908-1909) 1919
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desde el Perú los Mbayás y desde entonces traerían la inclinación á engalanarse con plata y metal amarillo.»[1]) 177

BOGGIANI[2]) finds great similarity between the Mbayá Indians' ornamentation on earthenware and woven fabrics and that on certain similar objects in Peru. KOCH-GRÜNBERG[3]) subjects these statements to a sharp criticism. He maintains that the ornaments of the Mbayá Indians «fall into two classes that have nothing to do with each other. The one class is represented by circular, snail, or floral ornamentation, sometimes degenerating into the most fantastic arabesque, and certainly having nothing in common with Peruvian ornaments. These designs are really not Indian at all; they are, perchance, connected with the Italian renaissance and are to be ascribed to the missionaries whose influence on the Indian tribes of Paraguay and the northern part of the Chaco for more than a century is usually underrated. To what extent the second class of Kadiuéo-ornamentation, — the simple «step and stripe» pattern, which is met with in greater perfection among the neighbouring Tereno and Payaguá of Asuncion and, in a somewhat poorer form among the Guaná and Sanapaná of the Chaco — is connected with Peruvian art requires an exact comparative study to decide. . . Such a connection is not impossible, for it may be assumed that the mighty Peru in the sphere of politics and art exercised an influence stretching far beyond her own borders». The supposition of LAFONE-QUEVEDO and BOGGIANI[4]) that the Chanca Indians, being driven out of Peru, settled in the Chaco and are to be identified with the Mokovi, Toba, Abipone and Mbayá is, as KOCH-GRÜNBERG has pointed out, very fantastic.

GRUBB[5]) has also taken up this question. He says:—

[1]) Vol. 2, p. 289.
[2]) (4), p. 30.
[3]) (1), p. 8.
[4]) (4), p. 31.
[5]) p. 50.

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177 «There are many interesting facts which seem to point to an ancient connection between the Indians of the Chaco and the Incas. Their methods of weaving and the patterns introduced in their blankets are almost identical with those seen in the relics of ancient Peru. This similarity is also very marked in the case of the string bags which they make and use at the present day, and there is some slight resemblance in their pottery. The Lengua Indians of the Chaco wear a woven band of wool round the head, and especially prize those ornamented with the feathers of a comparatively rare bird. They also practise the boring of the ears and the distending of the lobe to an enormous size, in order to insert ear-discs of light wood. . . Both these ornaments were highly prized by the Peruvians.»

This is correct. The following reflections, on the other hand, are rather whimsical.

«Among the superstitions of the Chaco Indians, I mention three which seem to point to a Peruvian origin. They appeal to the moon in matters of marriage and the moon was held by the Peruvians to be the sister-wife of the sun. Secondly, the Indians greatly fear the rainbow, when seen in the West, and the armorial ensign of the Incas was the rainbow. In the third place, referring to their superstitions connected with the Pleiades Dobrizhoffer writes: «They (the Peruvians) may have taught the inhabitants (of the Chaco) a religious observance of the Pleiades.»

Furthermore GRUBB states interalia that among the Lengua «there is a distinct trace of a superior people running in a north-westerly direction towards Peru, of fairer skin, finer features, greater intelligence, and of more self-reliant and aggressive character. The result of inquiries into the family connections of the people along this north-westerly line is that they all originated from the same stock, and among them I have found traditions and beliefs, which do not seem to be generally held by the tribes.»

These superior Indians may very well be Chané (Ara-

2: Nordenskiöld E-5 (1908-1909) 1919
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waks) who have adopted the language of the Lengua Indians. 1777
This is, at least, more credible than their descent from Incan refugees. On the other hand, it is, perhaps, not impossible that when the Spaniards conquered the Incas, some Indians fled thence to tracts lying east of the Andes. There are a good many traditions of such an emigration. Such refugees would naturally be of great importance as bearers of culture.

The Lengua tales of «the cities of the dead», built of solid material, viz., brick, are not impossible. They may, of course, refer to the great stone houses of the Incas. Very early reports from the coast of Brazil, the Rio Paraguay, and the River Amazon show that this was known to Indians far to the east of the Andes through more or less fantastic tales.

It appears from «Zeytung aus Presillg Landt», a paper attributed by Varnhagen[1]) to 1506 and by Sophus Ruge[2]) to earlier than 1515, that the Portuguese had heard, even at that early date, among the Indians on the east coast of America rumours of the Inca kingdom, the golden lands in the west.

It is even related that the captain of a Portuguese ship brought home a silver axe for the King of Portugal. This must have been the first article from the Inca kingdom to come to Europe. I am reproducing here that part of the publication which refers to the rich lands of gold and silver. That it refers to the Incan empire is undeniable.

«Ir solt auch wissen, das sie genügsam anzaygung pringen, das sie vō Cabo, wie gemelt ist, gegen vns bey Zway hundert meyll sein, daselbst in ainer port vnd fluss gewesen sein, do haben sie anzaygen von vil Sylber vñ gold, auch upffer, so im lanndt dynnen ist. Sie sagen das der Haubtman von dem anndern Schiff dem kunig von Portugal ein Sylbere Axt oder peyhel pring, zu gleicher weyss wie Ir Axt von staynen sein. Bringt im auch ein metal, sagen sehe wie messing, vnd

[1]) Page 50.
[2]) Page 18.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti
Chaco Indians SK4

177 emtphahe keyn Rost noch verletzung, wissen nicht ob es nyder Goldt ist oder was es ist. Sie haben auch an dem selben ort an der See erkandt von dem selbigen volck ein anzaygung das im landt dynnen ein pyrg volck sey, hab vill golds, trag das gold dun geschlagen, zugleicher weyss wie harnisch an der styrn vñ forn an der prust. Der Haubtman pringt auch einen man von dēselbigen landt, der hat den kunig von Portugal ye sehen wöllen. Der sagter wöll dem kunig von Portugal so vil golds vnd Sylber anzaygen geben, das im Landt sey, das seine Schiff nit furen mögen.»

It was the rumours of an Incan Empire that gave rise to the journey of Alejo Garcia through the Chaco from the Rio Paraguay to the Andes. (1522).[1]) Uhle has dealt with the problem of the influence of Incan civilization on tribes east of the Andes in a short treatise published at Lima. Unfortunately I have not had access to this while compiling the present work.

Debenedetti[2]) has pointed out the great similarity undoubtedly existing between the pottery he found at Tilcara in Quebrada de Humahuaca and that of the Chiriguano Indians. He compared, moreover, the earthenware found there with that used by the Choroti[3]). We must, however, recollect that the Chiriguano Indians derived their modern pottery from the peoples — the Chané especially — whom they subjugated when they conquered their present territory. There is, therefore, nothing remarkable in the fact of their pottery resembling that of the Humahuaca Indians.

I myself, in an earlier work, dwelt on the fact that there are, among the Chaco Indians, several elements of culture which they have obtained from the western area of civilization. As far as we know, the Gran Chaco was never

[1]) Dominguez; Nordenskiöld (13).

[2]) (2).

[3]) The vessel depicted by Debenedetti (2) Fig. 76 cannot, as he asserts, be derived from the Choroti, but must be from the Chiriguano or Chané.

2: Nordenskiöld E-5 (1908-1909) 1919
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conquered by the Incas. Neither historical nor archaeological proofs of such a conquest exist. 177

In all likelihood the influence of the mountain civilization was felt in the Chaco as the result of peaceful penetration, at least by the time of the discovery of America. There was considerable trade between the Indians of N. W. Argentina, who were strongly influenced by Incan culture, and the tribes of the Chaco. Of course, we have little historical proof of this. Yet it is demonstrable that trade extended as far as the Rio Paraguay. If we may believe RAMIREZ, who described the Cabot expedition (1526), the Indians living about the R. Paraguay travelled to the Inca country for the purpose of trading.

Thus he asserts[1]) that from the villages of the Chandule on the Rio Paraguay women and children betook themselves to the mountains to get metal. The Chandule were Guaraní Indians. It sounds odd that women and children should have undertaken the long journey through the Chaco to the Andes. Still we must bear in mind that safe-conduct for traders is or has been an idea not strange to the Indians. Nor is it impossible that RAMIREZ'S informant meant that Indians with their wives and children journeyed to the mountains to carry on trade, just as, nowadays, many Indians take their families along when they leave the Chaco to go and seek work at the sugar-mill. These metals and articles of gold and silver the Chandule bartered with other Indians dwelling far south of the Paraguay river. They gave in exchange «quentas» i. e., shell-beads and canoes[2]).

This trade was, of course, not new in 1526, but it must have flourished in pre-Columbian times. It is quite feasible that in this way metal objects from the Inca country

[1]) P. 33. «se informó que tenían mucho metal porque segun los indios lo decían de las dichas caserías hiban mugeres y niños fasta la dicha sierra é traían el dicho metal»

[2]) RAMIREZ, p. 33.

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found their way to the coast of Brazil. Thus UHLE[1]) describes a copper axe, found in the southern part of the province of São Paulo, which is plainly derived from the mountain civilization of western S. America. The eminent German scientific explorer v. Ihering[2]), the creator of the São Paulo Museum, also holds that influences from the mountain civilization are to be traced in the archaeological discoveries made in S. Brazil.

It is likely also that Incan traders occasionally visited the tribes of the Chaco, or at least the Chané who dwelt on the borders of the Incan empire. Such traders may be supposed to have enjoyed safe-conduct.

CIEZA DE LEON[3]) relates how the Inca Huayna Capac sent Orejones to the east as his emissary. He says that they proceeded as traders — «en hábito de mercaderes» — and thereby plainly indicates that, as such, they were to travel unmolested.

We know for certain that there was trading between the Indians of the western area of civilization and the Indians of the Chaco shortly after the conquest of the Incan empire, and it is probable that the Indians were merely continuing commercial relations that had long existed.

LOZANO[4]), for instance, affirms that shortly after the founding of the town of Jujuy in 1593 Juan de Baños came there from Chuquisaca. He observed that, now and then, many of his Indians disappeared and were away for about two months. When asked why they did so, they answered that they went to «Chacu» to trade with the inhabitants, among whom they had many friends and acquaintances.

Indians from the interior of the Chaco seem also to have sought these superior tribes in order to barter deer-skins,

[1]) (8).
[2]) (3). p. 570.
[3]) (2). p. 230.
[4]) p. 1.

2: Nordenskiöld E-5 (1908-1909) 1919
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ostrich-feathers etc. Thus NARVAEZ[1]) relates in «Relacion de las provincias de Tucuman» of the Indians about the Rio Bermejo: — «Estos indios suelen venir á la tierra de paz y traen cueros de venados y plumas de avestruces y garzas y otras de estima, y cueros de unos gatillos de monte buenos para aforros.» 1717

LOZANO[2]) also relates that in the year 1657, in the forests around Esteco, three hundred Calchaqui Indians were met with who had come there from their own hill-country to get wood for their bows. BOMAN[3]) rightly presumes that most of the wooden articles found in the old excavations of the woodless tracts in the northernmost part of Argentina were brought from the Chaco or from Jujuy and the Salta valleys. The influence of the mountain civilization certainly continued long after the conquest. In N. Argentina the Calchaqui Indians whose civilization was of the Bronze Age, long maintained their independence of the whites and certainly preserved for a long time much of their ancient culture.

As a matter of fact, tribes of N. Argentina, culturally and linguistically related to the Choroti and Ashluslay, lived in immediate contact with the mountain civilization, as is proved by the investigations of KERSTEN and BOMAN. Thousands of Indians now come every year from different parts of the Chaco to the sugar-mills of N. Argentina to seek work. These periodical wanderings from the Chaco have, most surely, been going on for a long time. We know that as early as the second half of the 16th century the wild Sulense[4]) from the Chaco sought work from the whites in the neighbourhood of Tucuman.

[1]) p. 140.
[2]) LOZANO, after BOMAN, p. 644.
[3]) p. 643.
[4]) Annuæ Litteræ Societatis Jesv 1589, p. 420:— «Adeunt interdū ad Hispanos, certis temporibus, operis faciendi».

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti
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(77 It seems to me not unlikely that Indians from the Chaco in pre-Columbian times likewise sought work in the same tracts from superior tribes compelled to this by the famines which almost periodically visited their country. To this very day the Tapiete, who are on a lower level of civilization, come to seek work and food from the more prosperous Chiriguano.

The great annual migration from the Chaco to the sugar-mills in Argentina had thus, at any rate, its counterpart in pre-Columbian times. In that case it must have contributed in a high degree to the spreading of culture-elements from the western area of civilization to the tribes of the Chaco.

It is very possible that the Choroti, Ashluslay and related tribes were culturally influenced by the mountain civilization via the Chané. These latter lived and still live at the foot of the Andes and, in all likelihood, at the time of the discovery of America were in immediate contact with Bronze-Age culture. Most the culture-elements which, in our opinion, the Choroti and Ashluslay received from the Bronze Age culture of the west we find, as was aforementioned, also among the Chané and the Chiriguano.

The latter Indians, however, only migrated from Paraguay to the country they now inhabit during the 16th century. Since then the Chiriguano have learnt a good deal from the Chané.

It is known that a large number of Chané Indians accompanied Garcia from the mountains to the Rio Paraguay where they sought refuge among the Sococies and the Xaquetes Indians[1]). NUÑEZ CABEZA deVACA found on the Rio Paraguay a couple of villages inhabited by these refugees[2]).

[1]) NUÑEZ CABEZA deVACA, Vol. I p. 277. From Puerto de los Reyes.

[2]) A media legua estaua otro pueblo mas pequeño de hasta setenta casas, de la misma generacion de los Jacocies. Y a quatro leguas estan otros dos pueblos de Chaneses que poblaron en aquella tierra, de los que atras dixe que truxo Garcia de la tierra adentro y tomaron mugeres en aquella tierra. NUÑEZ CABEZA DE VACA, Vol. I, p. 291.

2: Nordenskiöld E-5 (1908-1909) 1919
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The Chané who probably dwelt in immediate contact with the mountain civilization may have played a very great part as bearers of civilization. The fact is that the Chané penetrated the whole of N. Chaco, where, although culturally superior, they were in a peculiar way the vassals of the Mbayá Indians.

I am therefore of the opinion that the great influence of Bronze Age culture in the Chaco may be explained partly by the visits of Chaco Indians to the superior tribes of the the west for the purpose of trade and to seek work, and partly by the penetration of the whole of N. Chaco by the Chané Indians who had long dwelt in contact with the mountain civilization. Thanks to the circumstance of their having long dwelt within the sphere of influence of the mountain civilization these Arawaks possessed a civilization which [illegible] kindred tribes in N. E. Bolivia, Mojos and Baure. Consequently they are bearers, not of probably Arawak culture elements, but in a far greater degree of such as they have borrowed from the mountain civilization.

The negative influence of the Bronze Age culture in the Chaco is hard to estimate. Most likely it has not been very considerable. The Indians of the mountain civilization were not able to dump their ready-made tools and clothes, etc., in the Chaco, as the whites have done.

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XXX.

Elements of Culture received by the Indians of the Gran Chaco from the northern part of S. America.

A
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In the foregoing I have collected the culture-elements received by the Choroti and the Ashluslay from the whites as well as from the Bronze Age culture of the west and south-west. In the following I shall review those culture-elements whose distribution is markedly northern.

The undoubted acquisitions of the Choroti and Ashluslay from this quarter do not appear to be many. The most important would seem to be the loom and the cultivation of the manioc. The latter is, however, of no great significance to these Indians, as the manioc cannot everywhere be cultivated within their boundaries. Later on, it will probably be proved that many of the culture-elements whose distribution is imperfectly known come under this heading.

Most likely it is the Chané Indians and, possibly, the Guarani peoples who, in this case, have been the bearers of culture.

Table 3.

Northern and eastern culture-elements = +.

1)	Dwellings.	—
2)	Beds.	—
	Cultivated plants and agricultural implements.	
	Manioc.	+

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4) Implements used in harvesting wild plants. ..... –
5) Hunting weapons and implements. ..... –
6) Weapons seldom or never used for hunting .... –
7) Fishing tackle. .....
Fishing with baskets put over the fish. ..... + ?
8) Domestic animals and articles connected with them –
9) Tools. .....
10) Implements for making fire. .....
11) Hearths and articles connected with them. ..... –
12) Implements and vessels used in the preparation and consumption of food.
(a) Used in the preparation of meal.
Grater for manioc. (Map 11) ..... +
Wooden mortars. (Map 10) ..... +
(b) Cooking pots ..... –
(c) Wooden spit. ..... –
(d) Vessels out of which food is eaten. ..... —
(e) Implements with which food is eaten. —
13) Means of indulgence. ..... –
14) Clothes.
Palometa stockings. ..... + ?
15) Articles connected with the deforming of the body. ..... –
16) Tattooing instruments ..... —
17) Ornaments for the body ..... —
18) Toilet articles
Stamp for painting the face. (Map 24)..... + ?
19) Apparatus for carrying things
Band for carrying children ..... +
20) Articles used for keeping things in..... –
21) Games and playthings
Maize-leaf ball. (Map 29) ..... +
22) Signalling and musical instruments, etc. ..... –
23) Trophies ..... —
24) Property marks..... –

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25) Various kinds of handiwork.

a) The making of rope and string and spinning. Spindle with a knob on the upper end of the spindle rod. (Map 35) ..... +
b) Sewing or the use of the eyed needle ..... —
c) Knitting and plaiting. Technique 9. (Fig. 60.9) ..... +
d) Twisting of rope and string ..... —
e) Weaving ..... +
f) Pottery ..... —
g) Wood-carving ..... —
h) Bone and shell-bead work ..... —
i) Carving and ornamenting of calabashes .... —
j) Feather work ..... —
k) Leather work ..... —

The undoubted acquisitions of the Choroti and Ashluslay from northern S. America do not amount to very much.

On the other hand, we find a number of important culture-elements among the Chiriguano and Chané Indians who dwell on the borders of the Chaco. Their original home was in the northern part of S. America and they were not taken up by the Choroti, Ashluslay or kindred tribes. These culture-elements include:

Hammocks.

The seat.

Multi-pointed arrows.

Bow with sharply defined notches at the ends.

The panpipe. (Materials found in the Gran Chaco). The Indians may, however, have received the panpipe from the Bronze-Age culture in the west.

Basket work of various kinds.

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From this it seems to me perfectly clear that the Choroti and the Ashluslay, like their neighbours the Toba, Mataco, and Lengua, did not migrate from the north to the region

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they now inhabit. Otherwise their standard of civilization would not be so sharply distinguished from that of the tribes dwelling to the north of them.

If those elements of culture are eliminated which the Choroti and Ashluslay have received from the whites, from the mountain civilization, and from northern and eastern S. America, the remaining culture-elements are certainly, for the most part, very ancient. They are partly culture-elements so widely distributed in S. America that we cannot say whence they originally came, partly culture-elements especially characteristic af the Gran Chaco and not found elsewhere in S. America, and partly such as prove that the Chaco Indians, before they were influenced by the whites, the mountain civilization, and the Chiriguano and Chané Indians, possessed a civilization which was closely connected with that of the Patagonians.

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XXXI.

Elements of Culture specially characteristic of the Choroti, Ashluslay and kindred tribes.

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The characteristic culture-elements of the Chaco are in the following table denoted by = +.

Table 4.

1)	Dwellings.	
	»Porch-entrance» to huts	+
2)	Beds	—
3)	Cultivated plants and agricultural implements	—
4)	Implements used in harvesting wild plants.	
	Hooks for gathering fruit	+
	Fork for digging caraguatá	+
	Implements for pulling up grass	+
5)	Hunting weapons and implements	—
6)	Weapons seldom or never used for hunting	—
7)	Fishing tackle.	
	Club for killing fish	+
	Needle for stringing fish	+
8)	Domestic animals and articles connected with them	—
9)	Tools.	
	Wooden knives (Shape from the mountain civilization)	+
	Wooden awls	+
10)	Implements for making fire	—
11)	Hearths and articles connected with them	—

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12) Implements and vessels used in the preparation and consumption of food.
   a) Used in the preparation of meal.
      Earth mortars ..... +
   b) Cooking utensils ..... —
   c) Spit ..... —
   d) Vessels out of which food is eaten ..... —
   e) Implements with which food is eaten. —
      Wooden knife used when eating watermelons +
13) Means of indulgence and articles in connection therewith: Pipe-cleaner ..... +
   Pipe-filter ..... +
14) Clothes ..... —
15) Articles connected with the deforming of the body —
16) Tattooing instruments. —
17) Ornaments for the body.
   Ankle bands of feathers ..... +
   Brow ornaments of human hair..... +
18) Toilet articles ..... —
19) Apparatuses for carrying..... —
20) Articles used for keeping things in.
   Bags of certain shapes..... +
21) Games and playthings.
   Dolls made of toe-joints..... +
   Tattooed dolls ..... +
22) Signalling and musical instruments, etc.
   Earthenware drum ..... +
23) Trophies ..... —
24) Property marks ..... —
25) Various kinds of handiwork.
   a) The making of rope and string and spinning —
   b) Sewing or the use of the eyed needle ..... —
   c) Knitting and plaiting
      Technique (Fig. 60.3)..... +
      Technique (Fig. 60.6)..... +
   d) Twisting of rope and string..... —

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e) Weaving ..... —
f) Pottery
Armadillo tail for the polishing of earthenware ..... +
Wooden tools for the polishing of earthenware ..... +
Finishing and polishing of earthenware with resin ..... +
g) Wood carving ..... —
h) Bone and shell-bead work ..... —
i) Carving and ornamentation of calabashes.. .
j) Feather work ..... —
k) Leather work ..... —

Many of the characteristic culture-elements of the Chaco are adaptions due to the natural conditions prevailing there. Probably some of them have their origin elsewhere, though proof of this cannot be adduced.

As regards the shape and ornamentation of objects, details can be indicated in almost every article which are characteristic of the Choroti and Ashluslay, or at least of them and their above-mentioned kindred tribes. If a collection of objects from the Chiriguano and the Choroti were mixed together, I should be able to distinguish them without the least difficulty and without making a single mistake. On the other hand, if a number of Choroti and Ashluslay articles were mixed, I should not be able to make such a selection even with the aid of my large collections from these Indian tribes.

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XXXII.

Elements of Culture received by the Indians of the Chaco from the southern part of S. America.

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There is no multiplicity of culture-elements of southern origin among the Ashluslay and Choroti.

They give the impression of ancient elements of culture-relics from a time when the Choroti and Ashluslay probably possessed a civilization similar to that of the Ona and Patagonians (before the introduction of the horse), when they were still living in a colder climate than the one where they now dwell, a climate where it was an advantage to be in skins.

The ball-game with the (hockey-like) stick is probably derived from the mountain civilization, though it now occurs only in the Chaco and among the Araucanians.

Table 5.

Southern Culture-elements occurring among the Choroti and Ashluslay + .

1)	Dwellings	—
2)	Beds	
	Skin mats	+
3)	Cultivated plants and agricultural implements	—
4)	Implements used in the harvesting of wild plants	—
5)	Hunting weapons and implements.	
	Bowstring of strips of skin	+
	Bow without notch at the end	+

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6) Weapons seldom or never used for hunting. .... —
7) Fishing tackle ..... —
8) Domestic animals and articles in connection with them. —
9) Tools. —
10) Implements for making fire. —
11) Hearths and articles connected therewith. —
12) Implements and vessels used in the preparation and consumption of food. —
a) Used in the preparation of meal. —
b) Cooking utensils. —
c) Wooden spit. —
d) Vessels out of which food is eaten. —
e) Implements with which food is eaten. —
13) Means of indulgence and articles in connection therewith ..... —
14) Clothes.
Cloak made of several skins sewn together. (Map 15) +
Women's garment of skin (loin-cloth) ..... +
Leather girdles of various kinds..... +
15) Articles connected with the deforming of the body —
16) Tattooing instruments ..... —
17) Ornaments for the body ..... —
18) Toilet articles .....
Hairbrush..... +
19) Apparatus for carrying ..... —
20) Articles used for keeping things in
Bag of Ostrichneck skin ..... +
Bags of whole skin of small animals'..... +
21) Games and playthings.
Ball-game with hockey-like stick (Map 28) ..... +
22) Signalling and musical instruments, etc. ..... —
23) Trophies ..... —
24) Property marks ..... —
25) Various handicrafts.
a) Manufacture of rope and string and spinning —

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	Twisting of skin thongs	+
b)	Sewing or the use of the eyed needle	—
c)	Knitting and plaiting	—
d)	Twisting of rope and string	—
e)	Weaving	—
f)	Pottery	—
g)	Wood-carving	—
h)	Bone and shell-bed work	—
i)	Carving and ornamentation of calabashes	—
j)	Feather work	—
k)	Leather work	+

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XXXIII.

Culture-elements among the Choroti and Ashluslay, the origin of which it is at present impossible to fix.

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We have been able to select certain culture-elements which the Choroti and Ashluslay received from the whites, a large number of which evidently came to the Chaco from the western area of civilization; some, again, derived from the northern and some from the southern part of S. America; and finally, some which seem to be peculiar to the tribes of the Chaco. There are still, however, a large number of culture-elements left.

We know, for instance, from what quarter the Choroti and Ashluslay learned the use of the handle on earthenware; but we do not know whence the art of making earthenware came to them. The distribution of the handle is markedly western, while the art of making pottery in general has been known all around the Chaco. Of course the Chaco Indians need not necessarily have adopted the manufacture of earthenware from the western area of civilization because their pottery was plainly influenced from that quarter. The same holds good concerning their use of the calabash, spinning, etc.

There is, as we saw in the foregoing, a large number of culture-elements among the Choroti and Ashluslay concerning which the literature on the subject gives so little information that it is impossible, at present, to indicate their distribution on the map. Culture-elements of this kind are, for instance,

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network and dwellings. They are, accordingly, indicated in the following table.

Many culture-elements now occur almost everywhere in S. America where the natural conditions for their occurrence are found. Consequently, it is impossible to distinguish the source where the Choroti and Ashluslay have derived them. To this category belong most cultivated plants and many other certainly ancient elements of culture.

Table 6.

1)	Dwellings.	
	Chaco huts (Ancient element of culture)	+
	Cooking sheds (Distribution imperfectly known)..	+
2)	Beds.	
	Rush mat. (Distribution imperfectly known)....	+
3)	Cultivated plants and agricultural implements.	
	Maize	+
	Zapallo (Cucurbita)	+
	Cotton	+
	Beans	+
	Tobacco	+
	Calabash fruit	+
	Sweet potatoes	+
	Digging stick	+
	Club for breaking up clods (Distribution imperfectly known)	+
	Implement for seeding corn-cobs (Distribution imperfectly known)	+
4)	Implements used in harvesting wild plants	—
5)	Hunting weapons and implements.	
	Bow and arrow in general (ancient culture-elements)	+
	Arrow for shooting birds	+
	Bola	+
	Sling (Map 4).....	+
	Wristlets used by bowman (Distribution imperfectly known)	+

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Snares (Distribution imperfectly known)..... +

6) Weapons seldom or never used for hunting.
Bone dagger. (Distribution imperfectly known).. +
Fire arrow ..... +
Lance (Post-Columbian history imperfectly known) +
Leather armour (Post-Columbian history imperfectly known) ..... +

7) Fishing tackle.
Fishing by means of damming the stream. (Distribution imperfectly known) ..... +
Landing -net. (Distribution imperfectly known).. +

8) Domestic animals.
Dog. (Pre-Columbian distribution imperfectly known) ..... +

9) Tools.
Jaw of the palmeta..... +
Bone awl. (Distribution imperfectly known)..... +

10) Implements for making fire.
Do. made from wooden rods (ancient culture element.) ..... +

11) Hearths and articles connected with them.
Wooden spit (Map 7) (ancient culture-element) .. +
Pit- oven. (Map 8) ..... +

12) Implements and vessels used in the preparation and consumption of food
a) Used in the preparation of meal ..... —
b) Cooking utensils in general ..... +
c) Vessels out of which food is eaten .....
Use of the calabash in general +
d) Implements with which food is eaten.....
Mussel-shell spoon (Distribution imperfectly known) +
Calabash spoon (Distribution imperfectly known) +
Eating-brush (Distribution imperfectly known) .. +

13) Means of indulgence
Tobacco-pipe (Map 14)..... +

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14)	**Clothes.**	
	Woven mantle (Post-Columbian history imperfectly known)	+ 105
	Women's garment; so-called «tipoy»	+ 197
15)	Articles connected with the deforming of the body	
	Ear-block. (ancient culture-element) (Map. 18) ..	+
16)	Tattooing (Map 19)	+
17)	Ornaments for the body.	
	Necklace of bored teeth	+
	Necklace and other ornaments of grains of corn, leather, etc	+
	Rings of segments of the tail-skin of the lizard	+
18)	Toilet articles.	
	Stick-combs (in general)	+
19)	Apparatus for carrying.	
	Carrying-net (ancient culture-element) (Map 25) ..	+
20)	Various articles for keeping things in	+
21)	Games and playthings.	
	Cat-cradle game. (Distribution imperfectly known)	+
	Stilts (Distribution imperfectly known)	+
	Bull-roarer (Distribution imperfectly known)	+
	Dolls in general	+
22)	Signalling and musical instruments, etc.	
	Rattle gourd (Ancient culture element). (Map 31)	+
	Girdles of the claws of animals	+
	Whistles in general	+
	Flutes in general	+
23)	Trophies.	
	Scalping	+
24)	Property marks. (Map 34)	—
25)	Various kinds of handiwork.	
	a) Manufacture of rope and string and spinning (in general)	+
	b) Sewing or the use of the eyed needle	—
	c) Knitting and netting.	

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	Several kinds of knitting and netting. (Distribution imperfect-ly known)	+
	Mesh-stick (Distribution imperfectly known)	+
d)	Twisting of ropes and string (in general)	+
e)	Weaving	– –
f)	Pottery (in general)	+
g)	Wood carving (in general)	+
h)	Bone and shell-bead work (in general)	+
i)	Carving and ornamentation of calabashes (in general)	+
j)	Feather-work (very imperfectly known)	+
k)	Leather-work (in general)	+

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XXXIV.

The End.

An endeavour to reconstruct the civilization of the Choroti and Ashluslay Indians before their coming under the immediate, or mediate influence of the whites gives the following results. They kept no cattle. They tilled the ground to no great extent and lived chiefly by collecting wild fruits and by fishing and hunting. They had no iron tools. They probably made their clothes out of caraguatá, cotton, and skins.

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Prior to their coming into contact with the «civilized peoples» of western S. America, it is possible that they did not even till the ground, but lived entirely by the gathering of wild fruits, and by hunting and fishing. They had then no knowledge of the Caraguatá shirt, nor of most of the ornaments, musical instruments, games, etc, which they now possess. We may presume that they held their own fairly well in the struggle for life, but their life was poorer than it became after they had learnt the way of making and using a number of «articles of luxury» from the mountain civilization.

In only one respect can the influence from the north and east be said to have essentially modified their civilization, viz. in their having learned to cultivate the manioc and perhaps some other plants as well. Possibly, too, it was from there that they acquired the art of weaving. The occurrence of culture-elements like the fur-mantle, the bowstring of strips of skin, skin mats, etc. — things of small prac-

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As a matter of fact there are, in the Chaco, culture-elements which prove that the Indians well understood how to adapt themselves to the peculiar natural conditions prevailing there.

000 During my journeys I also carried on investigations, like those I made among the Choroti and Ashluslay, among other tribes visited by me. It appears plainly enough, from the maps and tables I have given above, that the influence of the mountain civilization in N. E. Bolivia was far less marked than in the Chaco.

In N. E. Bolivia also there are Indians who preserve original culture-elements. Such are the Cháma Indians, who are not thoroughly settled.

It is much to be desired that all the ethnographical material from S. America, collected in literature and in the museums, might be made the subject of an investigation according to the same method as I have employed here. Anyone possessing a thorough knowledge of a district and its natural conditions would then endeavour to give a clear account of the same. Maps of varying degrees of excellence have been published already, showing the geographical distribution of certain culture-elements, but no attempt has been made to draw up the history of tribes within a given area from the cartographical material at hand. It is important that the endeavour should be made to analyse the cultural life, as a whole, of the tribe or tribes, and not merely some few arbitrarily chosen culture-elements. Further, the investigator should always have actual knowledge of the natural conditions in which the tribe or tribes live.

The maps and information — original and derived from literature on the subject — which I am now publishing will, of course, lighten the labour of those who may study adjacent districts, just as previous accounts of the geographical dis-

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tribution of certain culture-elements have been useful to me. By and by maps will be purged of their errors and information become more complete. Finally the cartographical material will have reached such a pitch of perfection that we may get from it a thorough knowledge of the history of the S. American Indians.

I believe that an accurate cataloguing, carried out on a large scale, of the distribution of all the various articles, as well as of the various small inventions, over the whole South American continent, would give us a very exact comprehension of the history of the material civilization of this continent. This work would require much time and patience; and the greater the collections of material become, the less opportunity will there be for the play of fancy. Finally, however, the results will attain such a pitch of accuracy that they must satisfy the most critical investigator.

For myself, one of the main results of this work is that I have gained an insight into the vast amount of collecting and classifying that remains to be done before we can really say that we know the geography of the material civilization of S. America.

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ERRATA.

Page 53, l. 6 from bottom, *read* Map 6 *for* Map 5

" 203, l. 4 " " " Tassel " Brush and Broom

" 203, l. 3 " " " Tassels " Brooms

" 237, l. 3 " " " Pyrograving *for* Encaustic ornamentation.

[For distributional evidence concerning the Chaco Indians, see 2:Nordenskiöld in the SK6 Choroti file, entire volume. --Analyst]

[For distributional evidence concerning South American Indians in general, see 2:Nordenskiöld in the SK6 Choroti file, entiire volume. -- Analyst]

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[For distributional evidence concerning the Choroti, see Category 116, entire book. --Analyst]

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To these must be added obvious cultural elements that have come directly or indirectly from the white races.

The task before us is now to determine, as exactly as possible, these conjectural influences from various sources, and to define their nature and range; also, if possible, to find out from what districts the Choroti and Ashluslay originally started for the tracts they now inhabit.

To this end I have adopted the method of marking on the map of S. America the geographical distribution of a great number of cultural elements characteristic of the Choroti and Ashluslay, i. e. I have marked on the map, as exactly as possible, the distribution of each cultural element throughout the S. American continent

I have therefore attempted to draw up maps of the weapons, ornaments, articles of clothing, household utensils, and so on, characteristic of the Choroti and Ashluslay Indians in South America.

I have likewise tried to sketch maps of the distribution of various examples of technical skill exemplified by these Indians For this purpose I have turned to literary studies, besides utilizing the extensive collections that I made during my travels in S. America.

Thus, for instance, in determining the distribution of a cultural element, I have first mentioned its occurrence among the Indian tribes visited by me personally. These are, in addition to the Ashluslay and the Choroti, the Atsahuaca (in the border-land of Peru and Bolivia), Aymara, Baure, Canichana and Cayubaba (in N. E. Bolivia), Cavina (on the Rio Beni), Chacobo (in N.E. Bolivia), Chána (on the R. Madidi, a tributary of the R. Beni), Chané (on the R. Itiyuro in North Argentina, and the Rio Parapiti in Bolivia) Chimane (on the R. Maniqui, a tributary of the R. Mamoré), Chiriguano, Churápa (near Sa. Cruz de la Sierra), Guarayú (Guarayos, Bolivia), Guarayú-Pauserna, Huanyam and Huari (near the R. Guaporé), Itonama (in N.E. Bolivia) Matgco (in the Gran Chaco), Mosetene (on the R. Beni),

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Ashluslay

For several reasons I have confined myself to an investigation of the material culture of the Choroti and Ashluslay Indians. Maps elucidating the geographic distribution of certain conceptions and social circumstances can of course also be put together. Unfortunately, however, it has proved that in such a task one is continually brought up against the difficulty that primary facts are lacking for vast regions.

I might have taken another tribe than the Choroti and the Ashluslay, and have attempted an analysis of their civilization in the same way. That I should have chosen these particular tribes is due to my possessing a very complete collection of their things, and to these tribes being fairly untouched by the civilization of the white races. In addition to this, I have been greatly interested in the influence of the culture of the mountainous region of the Chaco. In reality, the maps and particulars here given also afford much information about other tribes than those dealt with in the first instance, and I therefore hope that the present work will be of some use to scholars whose researches deal with other parts of S. America.

A few years ago I published a book of travels[1]) in which I gave a fairly full account of the civilization of the Choroti and the Ashluslay. It will therefore be sufficient in the present work to refer to the data necessary for the tables and maps, i. e. the data calculated to throw light upon the geographical distribution and the origin of the different cultural elements.

Wherever I have come across a reliable authority on, let us say, a certain kind of weapons in the kingdom of the Incas at the time of the Discovery, I have assumed that it

[1]) »Indianlif», Stockholm, 1910. There is a Translation into German under the title of »Indianerleben», Leipzig 1912. There is also a French edition, which is unfortunately very faultily translated, and against which I must warn readers. There are some errors, too, in the German translation.

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II.

The Migrations of the Cultural Elements.

121 We must bear in mind that, in trying to draw conclusions from the geographical distribution of a cultural element, it is necessary to take account of where it may occur on the basis of natural conditions, the external assumptions for its use being present. There are of course a number of things in the culture of a people which are suited to the circumstances in which that people lives[1].) If, for instance we take a cultural element such as the sling, its distribution is restricted by the circumstance that this weapon can only be used in open ground. On the other hand, the knuckle-duster is an element which is independent of external circumstances: it can be used just as well by forest folk as by people in the plains, in the tropics as well as in cold places. Games of chance, again, are quite independent of the external conditions in which a race lives. Cards can be played equally well on the equator as in the polar circle. The same, to take a further example, is true of tattooing.

These cultural elements, which are independent of natural phenomena, generally consist of such as are comparatively or entirely unessential in the struggle for existence. Natural phenomena having set no impediment to their spread, they afford us excellent clues in the study of the migrations of peoples and civilizations.

[1]) We almost entirely miss this consideration in PATER SCHMIDT'S work, »Kulturkreise und Kulturschichten in Südamerika«.

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When a people moves from one district to another, it retains as a rule most of its old culture. If the new district offers other essential conditions than the old, a considerable part of the culture of the people must naturally undergo a change. Thus, in 1909 I came across a couple of Guarayú Indians on the Rio Parapati. They had long portable baskets, woven out of paripinnate palm-leaves. As we entered the Parapiti territory the baskets became worn out, but as there were no paripinnate palms in this part, they could not make new ones. If, for any reason, the Guarayú tribe were forced to migrate from their present region to the Parapiti region, they would have to change the type of their portable baskets. Similarly they would not be able to make their bows and arrows from the same material as now; and so on. Actually their material culture would undergo quite a number of changes. Every considerable shifting in the territorial spread of a tribe must have been accompanied by changes in its material culture. Should, for instance, the Indians in the Chaco be forced by circumstances to migrate to more northerly parts, to more exuberant primeval forests, as the rainy woods east of Sta. Cruz de la Sierra,[1]) their material culture would certainly assume a very different appearance. Sheep-breeding would then be impossible, clothes and ornaments of wool or pelt would disappear; the Caraguatá industry, which plays such a great part in the Chaco, would be impossible; baskets would probably have to take the place of pouches; and the dwellings would certainly take on another appearance. All this is, of course, a physical necessity.

It is not, however, probable that an Indian tribe would willingly migrate to another district which should offer it quite strange natural resources. When the Incas or Quichuas extended their rule from Quito to the north of Argen-

[1]) A shifting of this kind has taken place recently, some Tsirakua Indians from the Chaco Boreal having taken refuge in the primeval woods east of Sa.Cruz de la Sierra.

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121 tina, they came to districts where they could live in about the same circumstances as at home. They also had settlements, however, at no great distance off, in the primeval woods near their own capital. They established themselves in the primeval forest valleys on the eastern slopes of the Andes, chiefly on account of the cultivation of coca, but they did not give up their permanent abodes in the mountains. They only visited the settlements in the primeval forests for sowing and gathering the harvest. In North Argentina, as in the mountainous districts of Ecuador, they found about the same essential conditions as in the neighbourhood of Cuzco. Had they penetrated into the primeval woods some fifty miles east of Cuzco, and settled there, they would have had to adapt themselves to entirely new conditions.

Of course a race clings to its old culture, and there is also much, of course, in the material culture of a race which need not fear a change because the race has been brought under other climatic conditions, has moved from a plain to the hills, from rainy woods to dry districts, and the like.

At times one can probably work out where a race has come from, because it has preserved some cultural elements from the old domain which are now of no practical use to it. Thus, when some of the Indians in the Chaco wear fur cloaks, this is probably due to conservatism: they wear a garment to which they had been accustomed in the colder climate of further south.

It is certain that the material culture of a tribe more easily undergoes important changes when it moves from one district into another with different climatic conditions than when it remains under the same external essential conditions. The changed conditions force the tribe to adapt itself to the new circumstances. If, in the new district the tribe comes in friendly contact with people who have adapted themselves to the local conditions, and who for generations have gathered experiences, it is natural that it should

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learn a great deal from them. Its material culture will then show a mixture of the old culture and the culture it meets with in the tribe of the new district. |21

Tribes of very different origin, which live together with an interchange of culture under the same natural conditions; generally get a homogeneous culture. Of such a nature, for instance, is that of the Pano and Tacana tribes in the border country of Peru and Bolivia. So also with the various tribes in the Chaco. On the upper Rio Xingú live the Karaib, Arawak and Guarani tribes. They all have a similar civilization. The Chiriguano (Guarani) who have moved to their present locality, have now almost the same material culture as the Chané (Arawaks), who have been there a good while. On the other hand, their culture is very different from that of the Guarayú Indians, who migrated at about the same time as the Chiriguano, or early in the 16th century, from the neighbourhood of the Rio Paraguay, and who probably then possessed a culture similar to theirs.[1])

The neighbours of the Chiriguano towards the Chaco are the Guarani-fied Tapiete. These Indians, who are presumably more closely related to the Mataco group than to the Chiriguano, have adopted the language of the latter, but the bulk of their culture from the former[2]). This proves the posibility of two tribes with very dissimilar culture living together in friendly intercourse, without their culture assimilating.

The culture of a people can of course change, although the external essential conditions remain the same. But these changes take place very slowly under such circumstances, unless the tribe is exposed to influences from without, i. e. from other tribes. If it is a large tribe, the culture presumably changes quicker than if it is a small one. New ideas naturally arise more easily among a few hundred thousand

[1]) Nordenskiöld (13).
[2]) Nordenskiöld (7).

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● 121 individuals than among small tribes of a few thousand or a few hundred members.

A great part can undoubtedly be played in the development of the culture of a tribe by rape, the women that have been raped being taken up in the tribe and exercising the same handicraft as before. When a great number of raped women of a highly developed tribe are taken up by a tribe of lower standing, their cultural influence is bound to be very great. It may be assumed that even in their new surroundings they cling to their old technical methods of weaving, making pottery, etc.

The rape of women is, and was, common above all other things among Indian tribes. The little tribes of the Atsahuaca and Tambopata-Guarayo, for instance, in the border country of Peru and Bolivia, still carry off each other's women. We know that, when the Chiriguano conquered their present locality, they abducted great numbers of women from tribes living there and in the vicinity. If we study the cultural influences that a tribe has received from a certain source, we must examine whether it is industries that are specially practised by women which produce this influence. In that case there is reason to conclude that the cultural influences have been brought about by abduction.

With regard to most of the cultural elements that the Indians have received from the white men, their origin is easily comprehensible. Thus, that all that has to do with the employant of horses, comes from the white races, goes without saying. On the other hand, with regard to certain cultural elements it is at times very hard to decide whether they are originally American or not. This is true of such a thing as the needle with an eye. Such needles were found in western America in pre-Columbian times, and from there they probably reached the Chaco. Yet the Indians of the Chaco may have learnt the use of the needle from the white men. Sewing-needles were already at an early time a favourite and oft-employed article of barter.

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We must bear in mind that a race with a lower civilization is apt to imitate a more highly developed, or, let us say, a richer race, in clothes, adornments, etc. A tribe does not condescend to wear the adornments of more backward and poorer neighbouring tribes, but readily wears the ornaments and clothes of races more advanced and richer than themselves. Thus, the Chiriguano[1]) are fond of dressing like the white men, and the women bore their ear-lobes to be able to wear the earrings used by the white people. In this tribe it is characteristically the women of the younger generation, who have been more influenced by the white people that have bored ear-lobes, while the older women never wear ear-drops. On the other hand, the Chiriguano would nëver think of imitating the less civilized tribes in the Chaco. |2|

In the same way presumably, the Indian tribes east of the Andes have imitated the Incas, or Indians on a like cultural level, with whom they have come in contact.

Throughout the Chaco it is in the first place the chieftains and the interpreters that dress like the whites. This is regarded as being smart. SÁNCHEZ LABRADOR[2]) relates characteristically of the Mbayá on the Rio Paraguay, that the chieftains and the medicine-men, but not the other Indians, wore shirts reaching to the feet, a garb that was universal in the Inca Kingdom. It was smart to be dressed like the more advanced Indians, for which reason they copied them and spread the new fashions. Sepp[3]) relates that among the Yaro (Chaná) on the lower Rio Uruguay the chieftains slept in hammocks, the others on skins spread on the ground. This, too, was certainly at the outset a matter of fashion.

A more cultured race exerts a certain attraction upon a lower one, as long as the latter is not exposed to interference from the former. The Tapiete (one of the minor

[1]) NINO, p. 108.
[2]) Vol. I. p. 284.
[3]) P. 51.

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Chaco tribes) even apply for work to the more highly developed, fully domiciled Chiriguano, as at whiles the Mataco Indians apply to the Chané. The Incas and the tribes of N. Argentina belonging to the Bronze Age civilization, most certainly exercised a similar influence on the less civilized tribes with whom they had friendly relations.

For purposes of trade a higher tribe may of course visit a lower one. This can still be seen in the Chaco, where the Chané visit the Toba to exchange things for their dried fish. On such expeditions they are always amiable, we may suppose, and an exchange of commodities of this kind is very important for the spread of ideas.

When a cultural element has such a distribution that it occurs among a higher tribe and neighbouring lower tribes, and is otherwise lacking in extensive tracts I have assumed that as a rule it has reached the lower tribe from the higher. Thus, for example, if a cultural element occurs in the old cultural territory of the west of S. America, and is now found among a lower tribe in a territory adjoining that, we can assume in most cases that it came originally from the cultural part.

In the following pages, in speaking of the maps, I shall quote numerous examples of cultural elements with a distribution of that kind. Many of them occur only in the Chaco and within the cultural zone in western S. America. All the cultural elements with a distribution of this kind must have had a common origin, which cannot very well have been the Chaco, but must have been the cultural western zone.

What is true of the Bronze Age culture in relation to such tribes as the Choroti and Ashluslay, may be held to be true in general of the Guarani and Arawak tribes in relation to the first-named. It is the Choroti and Ashluslay that have borrowed some cultural elements from the more civilized Guarani and Arawak tribes, and not vice versa.

It has proved there that a great number of cultural

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elements have a westernly distribution, and evidently reached the Choroti and Ashluslay from the Bronze Age civilization in the west; a smaller number of cultural elements show a distribution which points to their having come from the north and east; others have a pronouncedly southern distribution; while others, again, only occur in the Chaco. 121

In the case of some cultural elements it has been impossible to draw up satisfactory maps, as they have been neglected by most investigators; some have such a distribution that it is impossible to decide from where the Choroti and Ashluslay got them.

Occasionally the higher races in the west seem to have taken over cultural elements from the tribes east of the Andes, but this does not seem to have been the general rule.

It is, of course, often difficult to decide whether a cultural element reached the lower tribes from the civilization of the mountains or whether it derived from a primitive civilization common to the mountains and to these tribes. We must attempt to decide this in each special case from the nature and distribution of the element. If, for instance, the Kelim technical skill, which is so characteristic of the cultural district in the west, occurs in the Chaco, but not in any other part of S. America east of the Andes, we have reason to assume that this cultural element is a loan made by the Chaco Indians from the mountain civilization. The same is true, for example, also of such cultural elements as shirts, certain curious whistles, etc. - A cultural element such as the carrying net, for instance, which is characteristic of western S. America, but also occurs in the Chaco and among certain undeveloped tribes in Brazil, did not, probably, spread from the mountains to the tribes east of the Andes, but dates from a very old period and a common primitive civilization.

In the following I will speak first of the material culture of the Chaco tribes here dealt with, and state the ev-

2: Nordenskiöld E-5 (1908-1909)1919
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[21] idence which I have collected about the distribution of each several cultural element, and which forms, so to speak, the verification of the maps. I will then tabulate the cultural elements which seem to have a common origin.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

PREFACE

My intention to collect my comparative work on the material development of the South American Indians into three volumes and make it accessible to the American public, has been done at the suggestion and expense of Consul-General Axel Johnson, the managing director of the steamship line that bears his name. The Johnson Line has to a very great extent helped to further the connection between the South American republics and Sweden. Thanks to this there is now a regular service of steamers from Sweden to most South American harbours of any importance.[1])

The Johnson Line has also endeavoured to further Swedish exploration in South America. Swedish explorers who have lately travelled in that continent, have in every way been supported by it in their work. Most explorers have also had the privilege of going from Sweden to South America in the comfortable Johnson Line steamers. Consul-General Johnson has rightly realized that the scientific results of explorations by Swedes in South America in the first place should be made to benefit South American explorers. Consequently he has, as

[1]) *The exports from Sweden to South America, as well as the imports from that country have greatly increased in recent years. For instance in 1904, when the Johnson Line was founded, the value of the exports from Sweden to the Argentine was £ 321 950; in 1913 it amounted to £ 488,059. Corresponding figures for Brazil are £ 5 500 and £ 126 830. The steam tonnage of the Johnson Line was 44 000 tons d. w. in 1913, including the motor ships of the latest type. Now, after the World War, it is a fleet of 17 ships, making a total of 115 000 tons d. w. with 9 motorships. Since the Johnson Line was started several good Swedish firms have been established in Rio de Janeiro, Buenos Aires, Santiago de Chile and other places. In Sweden a knowledge of and an interest in South America has been immensely promoted by the Johnson Line.*

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

however, that this object, on account of its weight and shape, would be rather unsuitable for a head ornament. At an attempt at fixing this bunch in a band tied round my forehead, the cluster overbalanced at the very first sharp movement. With some Indians (e. g., the Pueblo Indians of New Mexico) it is the custom at certain dances to hold branches in the hands,[1] and the Mataco, on occasions, dance round two men who are each holding a bunch of sugar cane, resting it on the ground. In this

Fig. 46. Hair-net, with chin strap of red, woollen yarn. The technique in the knitting work resembles what is known as macramé lace. Hair-net as well as chin strap decorated with small shell spangles. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 10. 3. 15.

Fig. 47. Hair-net of red woollen yarn. Knitting technique resembling that of macramé. In the chin strap, which consists of grey woollen yarn, small downy feathers are worked in. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 5.

latter case the dance in performed in order to hasten the ripening of the sugar cane.[2] The fan palm being of great importance in the food-getting of the Choroti, it is not inconceivable that the palm-leaf bunch here mentioned has been used at some magic dance, held with a view to obtaining an increased supply of palms. That palms are sacred trees, is a universal idea with the Indians,[3] a fact that enhances the possibility of this cluster having had some magical purpose. It may perhaps appear strange that I did not, without further ado, accept the statement of the

[1] Dunkham (1), plates facing pp. 117 and 119.
[2] Karsten (1), p. 80.
[3] Karsten (4), p. 126.

292 cluster being merely a head ornament, but the Chaco Indians often give
302 information that is purposely incorrect, and hence one cannot always rely
[24] upon their explanations.[1] A quaint head ornament, met with among the Choroti, consists of a cross, about 1 dm high, constructed of feathers, thread, and a wooden stick. These crosses, worn stuck into the frontlet, are very similar to a kind of ornaments, probably symbolic or magic, that are occasionally found together with ancient Peruvian mummies.[2]

[237]

Fig. 48. Ornament of white feathers, meant for fixing in a frontlet. Choroti. Gran Chaco, Bolivia. 1/2. Riksm. 03. 3. 26.

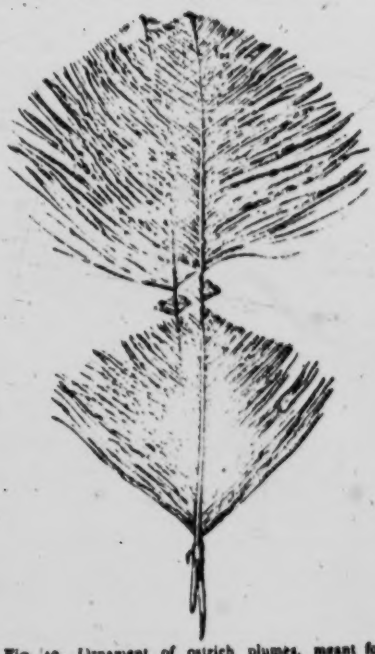

Fig. 49. Ornament of ostrich plumes, meant for fixing in a frontlet. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 20.

302 727 Occasionally the Choroti, and also other Chaco Indians, gather a lock of their front hair into a tuft, tying it round with yarn or narrow woollen tape, so as to make it look like a brush, or broom. Sometimes they make a similar little brush from false hair, and wear it pushed in under the frontlet, over the forehead, so that it points downwards. The false-hair brush here depicted (fig. 52) possessed special value to the Choroti

[1] As to the lying disposition of the Indians of the Chaco, see for example Nordenskiöld (18), p. 34.
[2] Nordenskiöld (11), pp. 138—140.

2: Nordenskiöld E-5 (1908-1909)1919
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Tambopata-Guarayo (on the R. Tambopata in Peru) Tapiete and Toba (in the Gran Chaco), Tsirakua (in the Chaco Boreal), Yamiaca (on the R. Inambari in Peru), and Yuracáre (on the R. Chapáre and the R. Sécure in Bolivia).

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I have moreover gone through the literature dealing with the Indians of South America, as far as it was accessible to me. In the case of a few cultural elements I could follow in part the statements of FRIEDERICI, PATER SCHMIDT RIVET and others.

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Unfortunately, with regard to extensive tracts, there are but sparse statements about the material culture of the Indians, indeed, about any aspect of the civilization of the Indians. Such tracts as are little known are those round the R. Ucayali and the R. Tapajos. An ideal work for those who would essay comparative investigations similar to the one here attempted, is KRAUSE's about the tribes on the R. Araguaya. One will find there everything one looks for about the tract examined. Of rarely quoted works that I have made use of here, the one by SÁNCHEZ LABRADOR on the Chaná and Mbayá is perhaps the most important.

Of unpublished museum material I have drawn chiefly upon what the Swedish museum had to offer. A great number of valuable particulars have been communicated to me by friends and colleagues, among whom I am indebted to Dr. G. Antze of Hamburg, Mr. Kai Birket-Smith of the National Museum, Copenhagen,(M.C.),Dr. W. Foy, Director of the Rautenstrauch-Joest Museum, Cologne(M. f. V. C.), Dr Franz Heger, Director of the Ethnological Museum,Vienna (M.f.V.W.), Dr.Th.Koch-Grünberg, Director of the Ethnological Museum, Stuttgart (M.f.V.S.), Dr F. Krause, Ethnological Museum, Leipzig (M.f.V.L.), Dr J.P.B.de Josselin de Jong, Royal Ethnographical Museum,Leiden, Prof.Dr L.Scherman, Ethnological Museum, Munich (M.f.V.M.), Dr. Max Schmidt, Berlin, Prof. Dr. E. Seler, Ethnological Museum, Berlin, (M.f. V.B.) Prof. Dr. Karl v.d. Steinen,Berlin, and Dr. G. Thilenius, Director of the Ethnological Museum, Hamburg, (M. f. V. H.).

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

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2: Nordenskiöld E-5 (1908-1909) 1919
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I.

Introduction and Plan of the Work.

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In the following pages I will attempt to analyse the material culture of two Indian tribes and contribute to our knowledge of their history. For the material of my investigations I have taken two tribes in the Gran Chaco of S. America, the Choroti and the Ashluslay, of whom I gained some considerable first-hand knowledge during my journey in 1908—09. It is only of late that these tribes have been made the object of study.[1]) Their culture is much of the same kind, and has been preserved in tolerably complete primitiveness.

HUNT[2]), who has studied the language of the Choroti and the Ashluslay, would identify the latter with the Chunupi, a Chaco tribe that has been known for a long time, but his assumption seems to me insufficiently established. In proof of this I here give a few common Ashluslay words, taken from HUNT's list of words, and place beside them equivalent Chunupi words, taken from LAFONE QUEVEDO[3]).

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[1]) Cf., in addition to my own works, those of HUNT, V. ROSEN, HERRMANN, and LEHMANN-NITSCHE.

[2]) P. 257. In these notes only the page or the illustration is referred to, to which attention is drawn. The title of the work in question must be sought in the bibliography. Where more than one work is given under an authors name, a number is assigned to each work and quoted in these notes.

[3]) (1), p. 122.

2: Nordenskiöld E-5 (1908-1909) 1919
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To these must be added obvious cultural elements that have come directly or indirectly from the white races.

The task before us is now to determine, as exactly as possible, these conjectural influences from various sources, and to define their nature and range; also, if possible, to find out from what districts the Choroti and Ashluslay originally started for the tracts they now inhabit.

To this end I have adopted the method of marking on the map of S. America the geographical distribution of a great number of cultural elements characteristic of the Choroti and Ashluslay, i. e. I have marked on the map, as exactly as possible, the distribution of each cultural element throughout the S. American continent

I have therefore attempted to draw up maps of the weapons, ornaments, articles of clothing, household utensils, and so on, characteristic of the Choroti and Ashluslay Indians in South America.

I have likewise tried to sketch maps of the distribution of various examples of technical skill exemplified by these Indians For this purpose I have turned to literary studies, besides utilizing the extensive collections that I made during my travels in S. America.

Thus, for instance, in determining the distribution of a cultural element, I have first mentioned its occurrence among the Indian tribes visited by me personally. These are, in addition to the Ashluslay and the Choroti, the Atsahuaca (in the border-land of Peru and Bolivia), Aymara, Baure, Canichana and Cayubaba (in N. E. Bolivia), Cavino (on the Rio Beni), Chacobo (in N.E. Bolivia), Chána (on the R. Madidi, a tributary of the R. Beni), Chané (on the R. Itiyuro in North Argentina, and the Rio Parapiti in Bolivia) Chimane (on the R. Maniqui, a tributary of the R. Mamoré), Chiriguano, Churâpa (near Sa. Cruz de la Sierra), Guarayú (Guarayos, Bolivia), Guarayú-Pauserna, Huanyam and Huari (near the R. Guaporé), Itonama (in N.E. Bolivia) Mataco (in the Gran Chaco), Mosetene (on the R. Beni),

2: Nordenskiöld E-5 (1908-1909)1919
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Tambopata-Guarayo (on the R. Tambopata in Peru) Tapiete and Toba (in the Gran Chaco), Tsirakua (in the Chaco Boreal), Yamiaca (on the R. Inambari in Peru), and Yuracáre (on the R. Chapáre and the R. Sécure in Bolivia).

A C 127

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A C 114

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2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay

For several reasons I have confined myself to an investigation of the material culture of the Choroti and Ashluslay Indians. Maps elucidating the geographic distribution of certain conceptions and social circumstances can of course also be put together. Unfortunately, however, it has proved that in such a task one is continually brought up against the difficulty that primary facts are lacking for vast regions.

I might have taken another tribe than the Choroti and the Ashluslay, and have attempted an analysis of their civilization in the same way. That I should have chosen these particular tribes is due to my possessing a very complete collection of their things, and to these tribes being fairly untouched by the civilization of the white races. In addition to this, I have been greatly interested in the influence of the culture of the mountainous region of the Chaco. In reality, the maps and particulars here given also afford much information about other tribes than those dealt with in the first instance, and I therefore hope that the present work will be of some use to scholars whose researches deal with other parts of S. America.

A few years ago I published a book of travels[1]) in which I gave a fairly full account of the civilization of the Choroti and the Ashluslay. It will therefore be sufficient in the present work to refer to the data necessary for the tables and maps, i. e. the data calculated to throw light upon the geographical distribution and the origin of the different cultural elements.

Wherever I have come across a reliable authority on, let us say, a certain kind of weapons in the kingdom of the Incas at the time of the Discovery, I have assumed that it

[1]) »Indianlif», Stockholm, 1910. There is a Translation into German under the title of »Indianerleben», Leipzig 1912. There is also a French edition, which is unfortunately very faultily translated, and against which I must warn readers. There are some errors, too, in the German translation.

2: Nordenskiöld E-5 (1908-1909)1919
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occurred throughout that kingdom. Though perhaps not always true, this holds good as a rule, since the kingdom of the Incas appears to have been a well organized country with good connexions between the different parts of it. CIEZA DE LEON[1]) says that in most of the Inca provinces the natives imitated one another so closely that in many respects they could be described as a homogeneous people.

Anyone acquainted with the published works on S. America will understand that it called for very much work to draw up the maps here reproduced. I was unfortunately unable to utilize several important old works[2]) as they are not to be found in the Swedish libraries. The bulk of the books from which I have quoted is, however, considerable. Where I had access to some really good works in one domain, I considered I could spare myself the trouble of hunting for other works in that domain. In other domains where no detailed ethnological works have yet been published, I have tried to get all that is attainable. For places which I have visited myself, I have preferred to rely on my own observations, for which reason the works here referred to about the Indians in the Chaco are not specially numerous.

To judge from the maps it would appear as if the cultural elements often had a patchy distribution, even in parts where external assumptions would point to their being universally present. This may be due to the fact that within considerable tracts of S. America the Indians are still little known, and still more frequently to their having died out or become civilized before being made the object of

[1]) (1), p. 269.

[2]) The language has of course not stood in the way of my making use of a work. It is simply absurd for foreign students to state they have been unable to make use of a learned work because it was written in Swedish. It is one's duty, if one is not acquainted with the language, to employ an interpreter in reading the book. To ignore works as certain English writers are wont to do, merely because they are written in another language than their own, or because they are written in Spanish, Portuguese and French when dealing with S. America, is chiefly their own loss.

2: Nordenskiöld E-5 (1908-1909) 1919
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detailed study. It may also be owing to the age of the cultural elements dealt with, for they are now only preserved by a small number of tribes, and if we are certain that a cultural element has a sporadic distribution over a whole continent, we can as a rule conclude that it is of great age. We must remind ourselves in this connexion that in most of the older writings there is unfortunately no reference to the material culture of the Indians, save as regards their weapons, dress and knick-knacks.

The maps are of course incomplete, since they indicate *distribution*. How difficult it is to make such maps complete, is easily seen from the circumstance that I have been able to supplement to some extent the monographs written about the distribution of various cultural elements in S. America, with the single exception of Foy's on the twine cross, and to this I have myself contributed some matter. However, I venture to opine that the maps are not so incomplete that the whole result of my investigation is thereby prejudiced, especially as I have been careful not to draw up any map of cultural elements, or to draw conclusions with regard to them, where their distribution was insufficiently known to me.

It is scarcely probable that any pre Columbian cultural element here dealt with should have reached S. America by more than one route, i. e., via Central America was well as via the West Indies. But this is a problem I will not touch on in the present work; nor have I touched on the difficult question whether cultural elements reached S. America in pre-Columbian times directly from the Old World.

It may be asked, to what extent an inconsiderable number of faulty particulars can disturb the whole result of an examination of the kind carried out here. Such faulty particulars of course occur in the very unequal and dissimilar works consulted for such a book as this. Yet I do not think they are many. It is improbable, for instance, that an author should assert that the sling was used by a

2: Nordenskiöld E-5 (1908-1909)1919
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tribe when this was not the case. In dealing with primary observations of material culture, these are too easily observed to admit of mistakes. Matters are otherwise in dealing with ideas and conceptions. Here misunderstandings may easily arise. There is also a danger in quoting from translations, as the translator may often make serious mistakes.[1])

Incompleteness of evidence is difficult to avoid, and I am sure other writers on America will have this or that to add to the maps[2]). *It is, however, one thing to add to a map, and another thing to made additions of such importance that they upset the results at which I have arrived.*

As regards the distribution of a great number of cultural elements, I have restricted myself to stating what I have myself observed on my travels. This applies chiefly to such elements about which I have come to the conclusion that I could not draw up a map showing their distribution throughout the S. American continent.

On the maps each tribe has as a rule a number or a lettered number. Thus, the Choroti are everywhere marked 1, the Ashluslay 2, etc. The tribes on the upper Xingú, the Bakaïrí, Mehinakú, Nuhuquá, etc. who possess a very congenerous civilization, has been given number 28, in common, in order to economise space, likewise the tribes round Roraima, 47, the tribes studied by KOCH-GRÜNBERG about N. W. Brazil, 48, and those visited by WHIFFEN in an adjoining district, 61. I have indicated in the text which tribes are included under these several numbers.

The localities whence the archaeological material derives, are marked with the letters A to O and a to z. A

[1]) Even the translations of the Hakluyt Society, as FRIEDERICI (2) (p. 288) has rightly observed, may be unreliable. This holds good for instance, of the translation of GARCILASSO DE LA VEGA.

[2]) For this reason I have left a few blank pages at the end of the book for the reader to make notes on, and shall be very thankful to receive such notes with permission to make use of them.

2: Nordenskiöld E-5 (1908-1909) 1919
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letter may however stand for a whole row of localities within the same district. This, too, has been done to economize space. The necessary details will be found in the text.

On the maps where the cultural element has probably reached the Choroti and Ashluslay from the civilized parts in the west, I have marked the frontier of the Inca kingdom.

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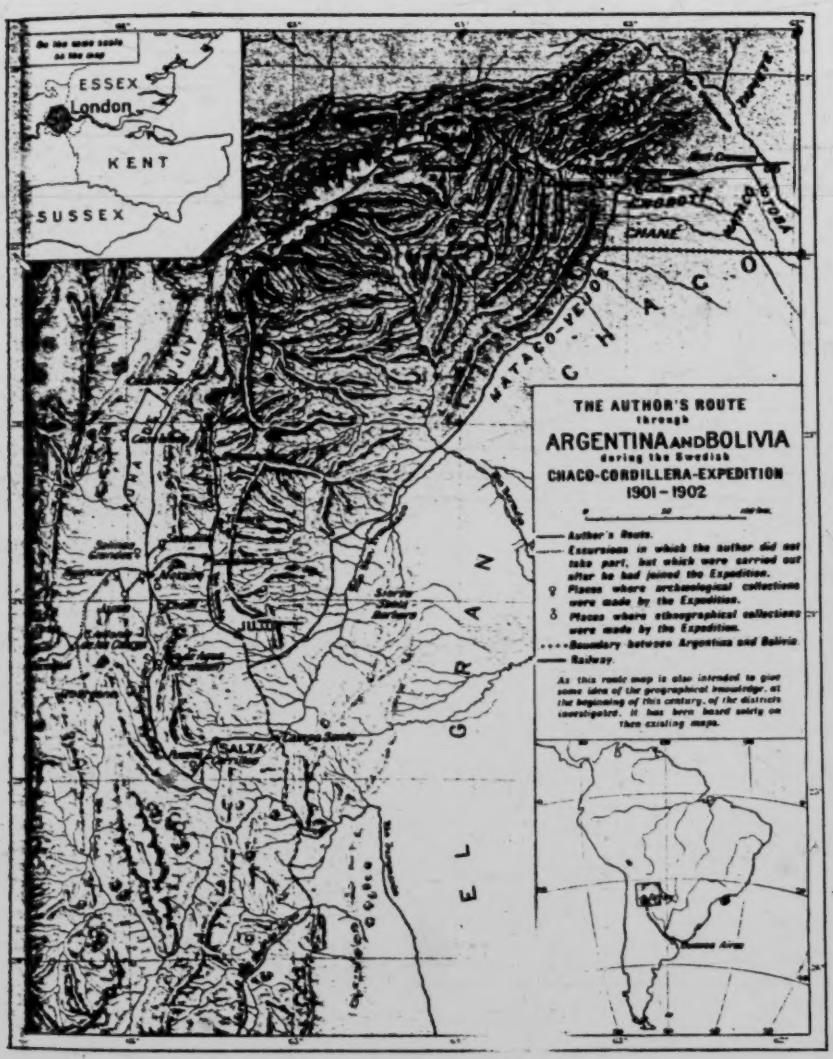

[p. ix]

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

CHAPTER I.

The Choroti. (I). The country and the people. Dwellings.

Situation and extent of El Gran Chaco. Some attempts at interpreting the name of Chaco. Journeys of exploration in the Chaco. Geographical discoveries. Ethnographical research among the Chorotis. The name of the tribe. Area of distribution. Physico-anthropological observations. Villages. Huts and their furnishings. Cooking sheds and drying-racks. Burning of villages.

El Gran Chaco (the great hunting ground) is the name given to the vast, partly forested, level country lying between the Andes and Rio Paraguay, the northern boundary of which roughly coincides with the parallel of 19 degrees of south latitude, whilst to the south it extends to about the 29th.

The meaning of the name of Chaco is not known with absolute certainty. Of the attempts at its translation so far made, in my opinion the most likely one is, that »chaco» (in quichua »chacu») means an assembly, or the place for an assembly, especially for the purpose of game hunting on a big scale.[1] Against this supposition the Finnish scientist, Karsten, puts forward the objection that the Gran Chaco is nowise abounding in game, and that consequently the application of the name of »hunting ground» to this region would be hardly suitable; in addition, Karsten points out that there are no certain proofs in existence that the civilization of the Incas ever extended to the Chaco.[2] To this I would reply that although, as is known, *the interior* of the Chaco is deficient in game, its outskirts towards the Andes as late as 1902 to such an extent teemed with game, birds especially, that it is only in certain parts of Africa I have seen anything to compare with it. Therefore I think it very probable

[1] Lindman (1), p. 46.
[2] Karsten (2), pp. 23 and 24.

114 By his living like an Indian among Indians, Nordenskiöld has in an unparalleled way succeeded in enriching ethnographical science, and his research achievement is one of the most noteworthy in the history of modern South American exploration.

101 The Choroti Indians are also called Chorote, Choloti, Tsoloti, Soloti and Solote. The final »s» added to these tribal names comes from the Spanish plural form, and has therefore in later works rightly been left out. The name they call themselves by is »yófuaha», or »yóshuaha», which probably means »pigeon people». If so, the pigeon would be the totem animal of the Choroti.

After the publishing of the valuable research, made by Hunt, of the Choroti language, it has become necessary to class this tribe with the [177] Mataco group, although the material culture of the Choroti in many respects shows an equally close kinship with the civilization of certain Guaycurú and Mascoi tribes, such as the Toba and the Lengua. That the Choroti have had their abode in the Chaco ever since the Inca period is highly probable, because, as already mentioned, their material culture in a [174] very obvious degree points to a strong influence from the ancient mountain civilization to the west.

101 The section of the Choroti tribe among whom I pursued my study, 131 was at the time of our expedition located in the neighbourhood of Caiza (see map). Some of the Choroti I met in this district had, however, their chief place of resort on the Pilcomayo, and thither they intended to return after a visit to the sugar plantations in northern Argentina. As I have [166] been informed, my red friends from the Caiza region at some later time did something or other to the annoyance of the settlers of the district, whereupon they moved further into the Chaco, and have since that time probably never again come into contact with whites. According to Nordenskiöld, other Choroti have, however, immigrated into the country about Caiza. The main part of the Choroti tribe inhabits the region immediately to the east of the Pilcomayo, and roughly between 21° 45' and 22° 45' of south latitude.

Our main camp, Tatarenda, was situate a few leagues south-west of Caiza, and the Choroti of whom I made a study were located one league south-west of the camp.

000 Of the Choroti among whom I carried out my investigations, the men

[Text continues on p. 31]

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

The Ashluslay are called *Suhin*[1]) by the Lengua-Mascoy, *Etéhua* by the Tapiete, *Áshli* by the Choroti, *Sówua* or *Sówash* by the Mataco, and *Sotegraik*[2]) by the Toba. A 101

They call themselves *Ashluslay*, as I have ascertained, and this is confirmed by HUNT[3]). The latter says it is the settlers on the lower Pilcomayo that call them Chunupi, a circumstance which has evidently misled him to identify them with a tribe of that name which has been known for a long time. The statements of settlers are to be taken with caution. An error of the same kind is to call the Ashluslay Tapiete.

The Choroti call themselves *Yóshnaha* (*Yóʃnaha*, acc. to HUNT.) However, I have preferred the former name, this being, moreover, the form in which it generally appears in the literature of the subject. It derives originally from the Chiriguano. They are called *Mánuc* or *Mániuc* by the Mataco. C 101

No archaeological investigations of any kind have been carried out in the territory of the Choroti and Ashluslay Indians. Not a single old grave, not one old dwelling has been examined there. And probably an archaeological examination of their territory would yield but little. It is exclusively the modern civilisation of these Indians from which we will try to draw some conclusions anent their history. A C 102

The Choroti and the Ashluslay live on and in the vicinity of the Rio Pilcomayo, a considerable river which flows down from the Bolivian plateau into the Rio Paraguay. A C 131

For the greater part the Rio Pilcomayo is not properly navigable. About where it cuts the tropic of Capricorn it loses itself in extensive swamps, the well-known «Esteros del Padre Patiño». It has a very unsettled course. More than once it has changed its course, and as you go from the A C 133

[1]) HUNT, p. 457.
[2]) FRIČ (1) p. 210.
[3]) p. 457.

Mataco SI7
Choroti SK6

M /320 cont./

771 They have a vague idea of superior beings, whom they fear
776 without worshiping them; the cleverest one becomes the sorcerer
756 and exploits the poverty of his companions, especially today when
648 they are earning money from the whites, to whom they lend im-
464 portant services.

M They frequently move from the region that they occupy to
167 the Argentine Republic; they work, dress, learn some Spanish
177 and a slight smattering of civilization, and return to their lands to live as before.

Choroti

Ci
131 The zone located southeast of Toba territory is occupied
197 by the Choroti Indians, who have their own language. They occupy the geographic degree 22° 30' latitude and 64° 10' longitude, on the left bank of the Pilcomayo River.

Ci They are quite numerous and peaceful, and they are not
181 treacherous like their neighbors, the Toba. Nevertheless, they
648 inspire respect in all the neighboring tribes; if a mission were to be established at said degree, the conquest of all the Bolivian territory /321/ up to 24° would be accomplished without the need of so many small forts, which are such a great expense to the Nation and which do not create centers of trade and civilization.

Ci Father Gianelli in years past visited the Choroti Indians,
797 was received with displays of affection and appreciation, and
177 found among them good inclinations toward becoming civilized, but at that time the harvest was too much for so few evangelical workers.

Ci The Choroti are not so lazy and savage as the other tribes;
181 they devote themselves to the cultivation of a few seeds and to
241 the raising of cattle, although on a small scale. They are also
231 hunters, however, and when they occupy the banks of the
224 Pilcomayo, they take advantage of the fruits the river brings them, especially in the great floods.

6: Nordenskiöld--156 E-5 (1908-1909) 1912 SF10 Chiriguano SF10

Mataco SI 7
Choroti SK6
Chane SF8

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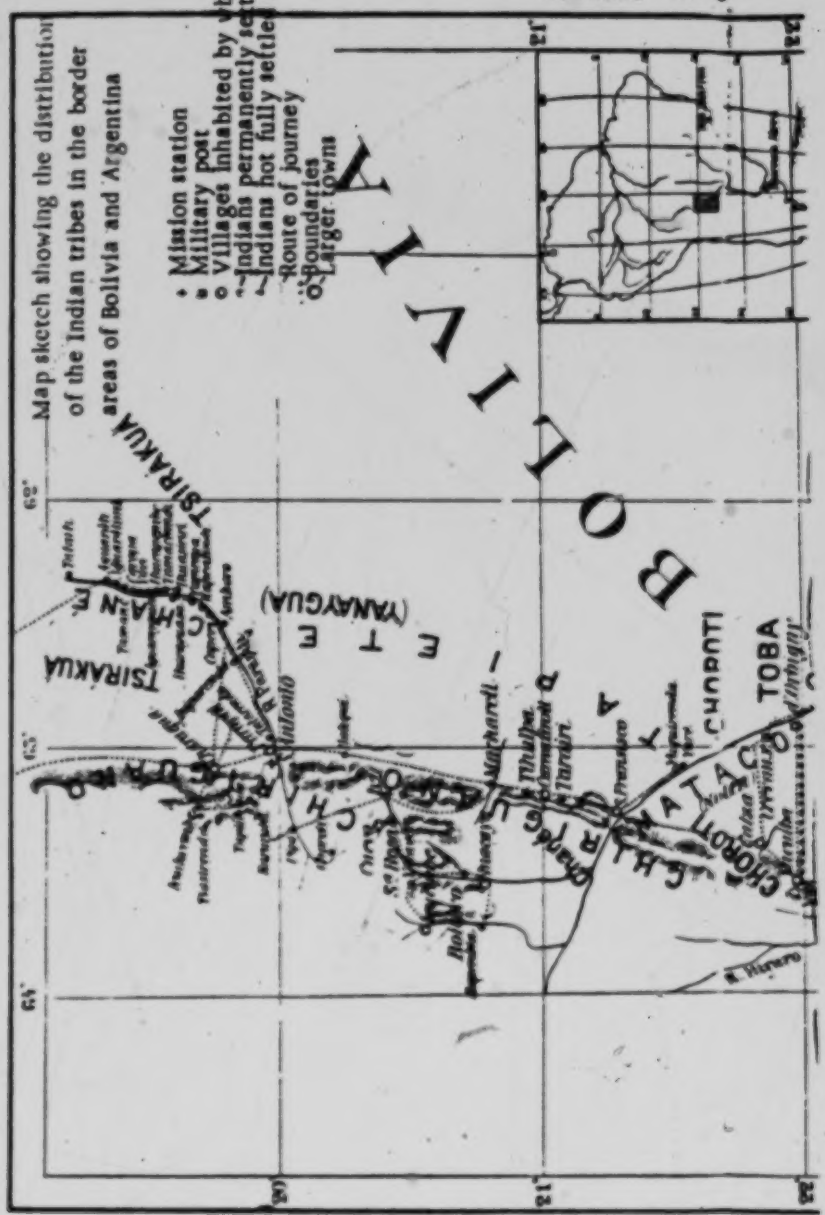

[End Map,(A)]

Ce 102 103 131 133 361 M C1 102 131 133

E: Nordenskiöld--157 E-5 (1908-1909) 1912 SF10 Chiriguano SF10
Mataco SI 7
Choroti SK 6
Chané SF 8

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

114 Pilcomayo,[1] whilst our countryman, Professor Lindman, has supplied very valuable contribution to our knowledge of the eastern parts of the Chaco.[2] Among the more important works on the Chaco that had been published prior to our expedition, those by Lozano[3], Peña[4] and Fontana[5] should also be mentioned, as they contain geographical, meteorological, ethnological, zoological and botanical data of great interest.

At the time of our expedition, the regions including the course of the Pilcomayo through the more central parts of the Chaco were, from a scientific point of view, still to a large extent completely unknown. It was in the attempt to explore these regions that Crevaux perished, and in the interior of the Chaco the two explorers, Ibareta and Boggiani, had also been killed by Indians. The murder of Ibareta took place the year before our expedition, and Boggiani fell a victim to the Indians in the same year that we visited the Chaco. Lista, too, met his death in this region shortly before our journey; according to his companions' statement, he took his own life.

After our expedition, and apart from Baron Nordenskiöld, many other explorers, among them the Finlander, Professor Rafael Karsten, have travelled in the Chaco and carried on extensive research work.

133 As I have already mentioned, the Gran Chaco is a partly wooded plain. In the eastern or central parts of the region the ground is not known to present any marked elevations, and it is only in the portion nearest to the Andes that any appreciable hills or rises are found.

Three large rivers, the Pilcomayo (fig. 1), the Bermejo and the Salado (Juramento) flow through the Chaco from north-east to south-west. Besides these, all the year round water-bearing rivers, there are, during the latter part of the dry season, only a very few water courses, the majority of which periodically dry up for part of the year; consequently, the country is exceedingly waterless.

132 During the rainy season, which practically coincides with the summer
133 and, therefore, lasts from and including November until the end of April, the volume of water in the rivers increases rapidly, and here and there the rivers rise above their banks and flood large areas. Beds of water-

[1] Storm.
[2] Lindman (1) and (2).
[3] Lozano (1).
[4] Peña (1).
[5] Fontana (1).

courses that during a great part of the year are without a trace of moisture, in the rainy season turn into mighty rivers (as Rio Seco, fig. 2), and during this period all depressions in the ground are filled with water, so that the dry-soil forests and grass steppes of the Chaco to a large extent are under water. Vast areas then change into typical marshland, with the fauna and flora that characterize marshes.

Fig. 1. The author testing the currents of the Rio Pilcomayo, so as to calculate the course for a later swim across. On the bank, a Bolivian soldier from Fort Crevaux. Gran Chaco. Bolivia.

The climate of the Chaco is tropical. During the summer-half of the year, the heat, especially in the dry-soil forests, is extremely trying. On the open grass steppes the heat is often tempered by currents of air, but in the forests the air is usually perfectly still, and as the stunted and scantily foliaged trees, of which the dry-soil forests of the Chaco mainly consist, hardly afford any shade at all, here the heat feels exceedingly oppressive. In the winter time the heat is naturally not so trying (at nights the temperature may go down to + 10° C.), but dust storms and dearth of water are the cause of long journeys on the Chaco even during this season being often attended by considerable difficulties and discomfort.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

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C
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tant bags are field-voles, and in some places ostriches and small deer.

The Chaco is intersected by the tropic of Capricorn, and is as a rule very warm. When the cold S. wind sweeps over the plains, however, it is bitterly cold, especially in May and June, and then the Indian, too, likes to wrap himself up in something warm.

A civilization very similar to that of the tribes here mentioned is possessed by their neighbours, the Toba, Mataco, Tapiete and Lengua, as well as some other Indians belonging to that part of the Chaco which is included in the Republic of Paraguay.

In reality the present work deals, not only with the civilization of the Choroti and Ashluslay Indians, but equally with that of the Mataco, Toba, Tapiete and Lengua.

In the Chaco Boreal dwell the little known Tsirakua Indians. Near the Andes dwell the Chiriguano and Chané. The former of these, who are Guarani Indians, emigrated to these districts as late as the early 16th century. They came from the territory E. of the Rio Paraguay.[1])

It was the Chané Indians, at least in part, that had to yield to the Chiriguano the territories where the latter settled at the beginning of the 16th century, and where they still live to-day. They made slaves of the Chané. Remains of this tribe still dwell, as we have mentioned, in the same parts as the Chiriguano. They are now Guaranitied.[2]) Yet a few of the Chané still have something of their original language. It is an Arawak language, and thus belongs to the most widely spread linguistic family in the whole of America. At the beginning of the 18th century numerous Chané Indians were still living in the Chaco Boreal, not far from the Rio Paraguay, where they were vassals of the warlike Mbayá. They are described as being of a higher civilization than their masters. Sánchez Labra-

[1]) Nordenskiold (13).

[2]) Nordenskiold, (8 B) p. 157.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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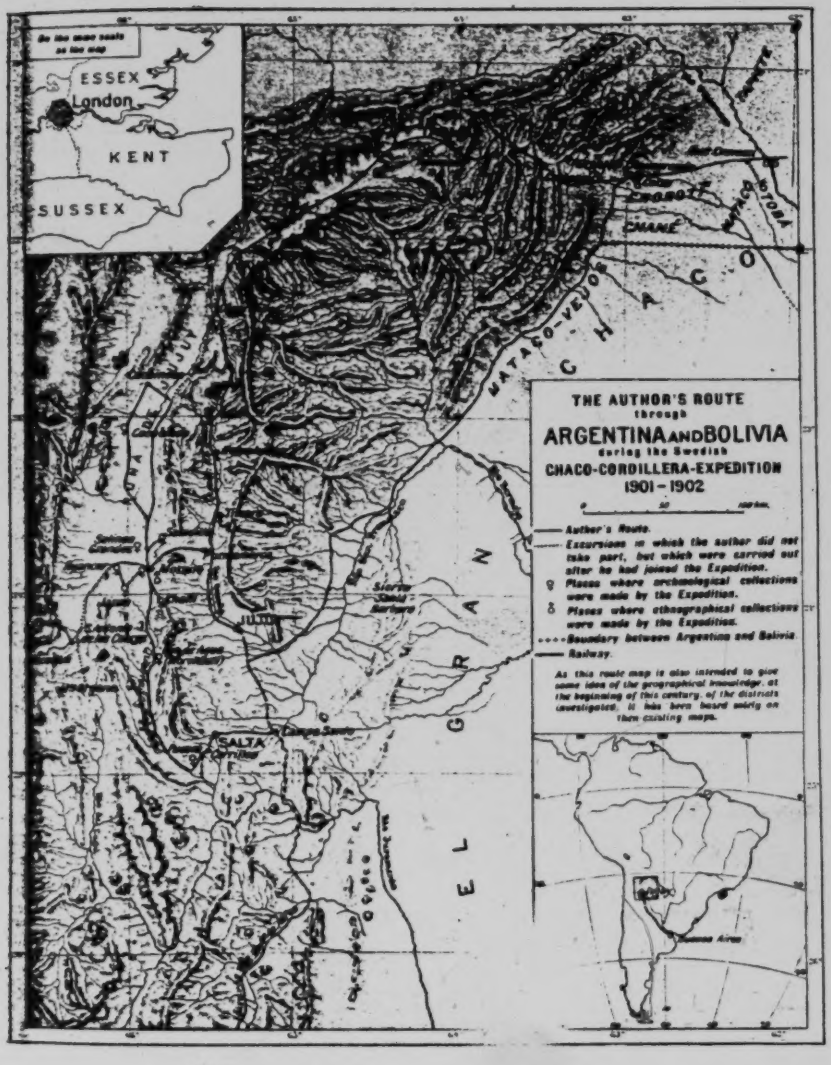

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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[2] Lindman (1) and (2).
[3] Lozano (1).
[4] Peña (1).
[5] Fontana (1).

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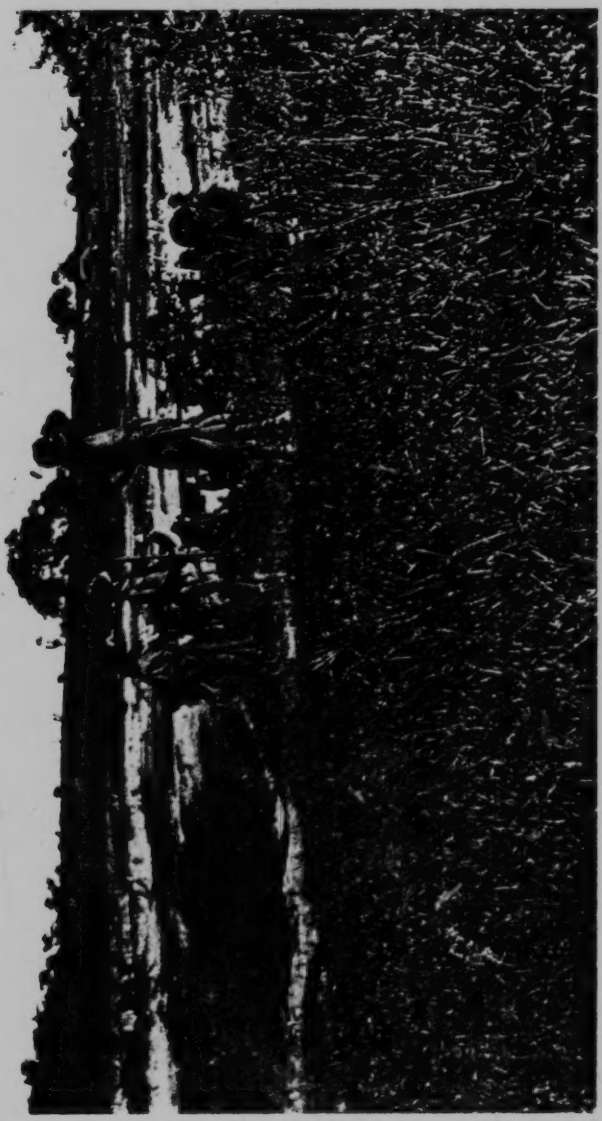

Fig. 8. Steppe with acacias. In foreground, watchful Choroti Indians. Tatarenda. Gran Chaco. Bolivia. Photo. F. v. R.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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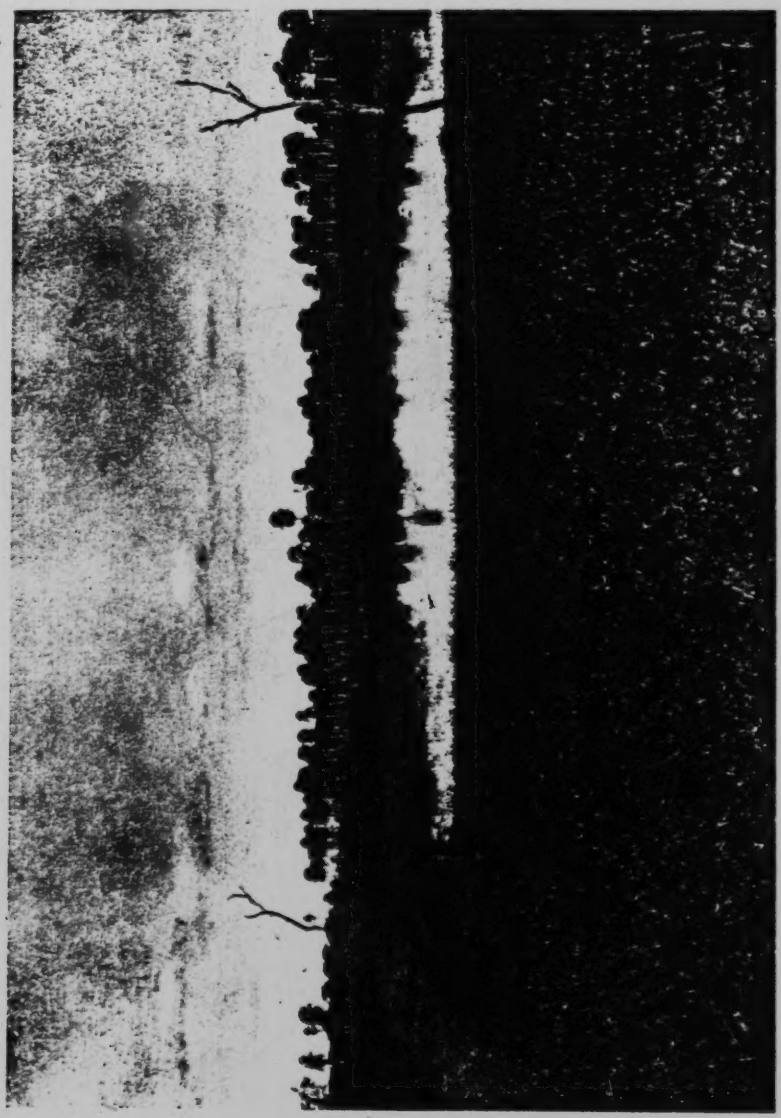

Fig. 9. Lagoon near a grove of fan-palms (Copernicia australis). Tatarenda, Gran Chaco, Bolivia. Photo. J. v. R.

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Fig. 109. Indians searching for ostriches. Choroti. Gran Chaco Bolivia Photo. E. v. R.

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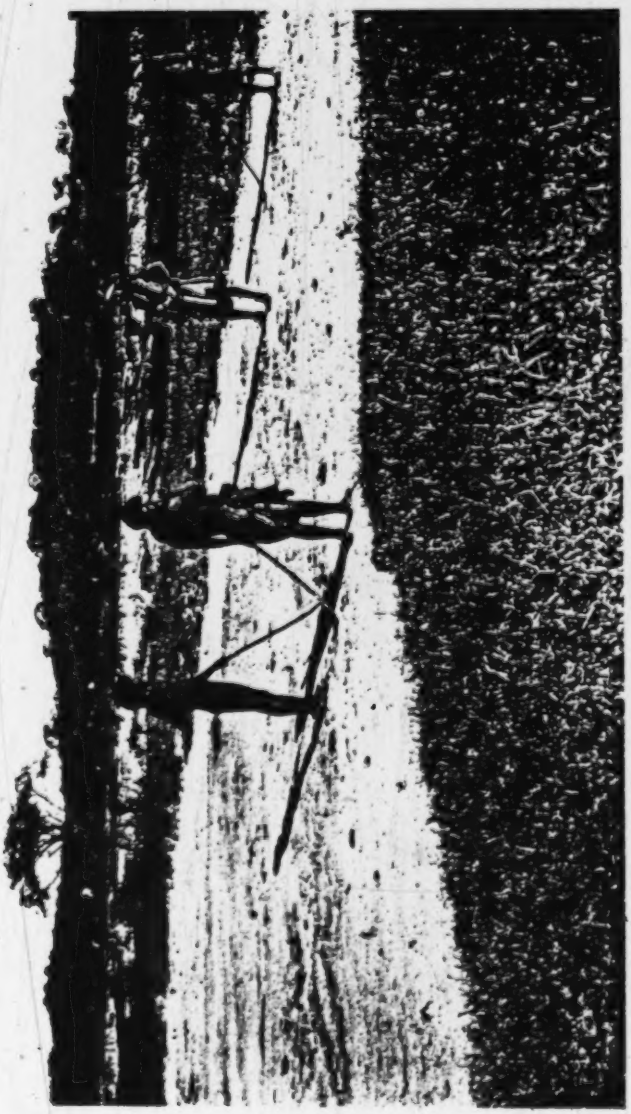

Fig. 177. Boys practising a ball game resembling hockey. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

The Ashluslay are called *Suhin*[1]) by the Lengua-Mascoy, *Etéhua* by the Tapiete, *Áshli* by the Choroti, *Sówua* or *Sówuash* by the Mataco, and *Sotegraik*[2]) by the Toba. A 101

They call themselves *Ashluslay*, as I have ascertained, and this is confirmed by HUNT[3]). The latter says it is the settlers on the lower Pilcomayo that call them Chunupi, a circumstance which has evidently misled him to identify them with a tribe of that name which has been known for a long time. The statements of settlers are to be taken with caution. An error of the same kind is to call the Ashluslay Tapiete.

The Choroti call themselves *Yóshuaha* (*Yójuaha*, acc. to HUNT.) However, I have preferred the former name, this being, moreover, the form in which it generally appears in the literature of the subject. It derives originally from the Chiriguano. They are called *Mánuc* or *Máuinc* by the Mataco. C 101

No archaeological investigations of any kind have been carried out in the territory of the Choroti and Ashluslay Indians. Not a single old grave, not one old dwelling has been examined there. And probably an archaeological examination of their territory would yield but little. It is exclusively the modern civilisation of these Indians from which we will try to draw some conclusions anent their history. A C 172

The Choroti and the Ashluslay live on and in the vicinity of the Rio Pilcomayo, a considerable river which flows down from the Bolivian plateau into the Rio Paraguay. A C 131

For the greater part the Rio Pilcomayo is not properly navigable. About where it cuts the tropic of Capricorn it loses itself in extensive swamps, the well-known «Esteros del Padre Patiño». It has a very unsettled course. More than once it has changed its course, and as you go from the A C 133

[1]) HUNT, p. 257.
[2]) FRIC (1) p. 210.
[3]) p. 257.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

A C 133

river into the interior you will find numerous remains of old river-beds, which in places now form lakes. A few miles from the Andes there is not a stone to be found in the Chaco. The soil consists of fine earth, which is transformed in the dry season into whirling dust, and in the rainy season into mud. In the dry season large tracts are flooded. The Rio Pilcomayo is also of great importance to the Indians on account of the abundance of fish in it.

A C 137

The woods alternate in the Gran Chaco with grassy plains. In some districts there are considerable clumps of palms, not those with paripinnate leaves, which are so useful to the Indians, but with fanshaped leaves, which are of little use. There are no trees from whose bark cloth can be made, as in the primeval forests of N.E. Bolivia. In the woods there grows, however, a spiny plant[1]), known as Caraguatá[2]) or Chahuar[3]). It is of great importance to the Indians, its filaments providing them with material for string rope, clothes etc.

The arrow-grass[4]) which can be used for so many purposes, is lacking in the Chaco. Edible wild fruits occur in the Chaco in an abundance that is quite unusual in S. America. Some of these, such as Algarrobo[5]) Chañar[6]) Tusca[7]) and Mistol[8]), are of supreme importance to the Indians. The abundance of wild fruits, as well as the intensive dryness during part of the year and the floods during another part, account for agriculture being so undeveloped in the Chaco.

A C 136

The stock of game is poor in the interior of the Chaco, or at least in such parts as I have visited. The most impor-

[1]) Bromelia.
[2]) Guarani.
[3]) Quichua.
[4]) Gynerium saccharoides.
[5]) Prosopis.
[6]) Gourliea decortitans.
[7]) Acacia aroma.
[8]) Zizyphus Mistol.

6: Nordenskiöld--156 E-5 (1908-1909) 1912 SF10 Chiriguano SF/0

Mataco SF7

Choroti SK6

Chane SF8

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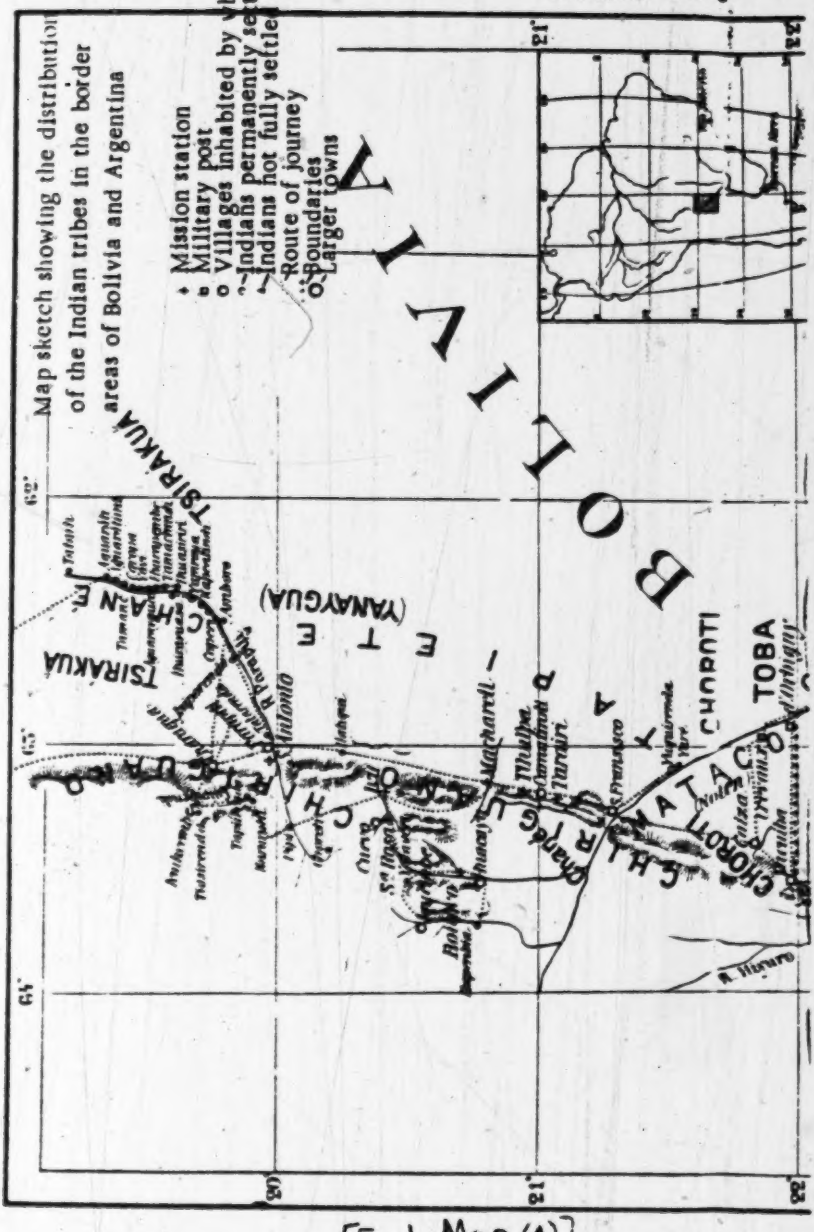

[End Map,(A)]

E. Nordenskiöld--157 E-5 (1908-1909) 1912 SF10 Chiriguano SF10
Mataco SF7
Chunoti SF6
Chané SF8

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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CHAPTER I.

The Choroti. (I). The country and the people. Dwellings.

Situation and extent of El Gran Chaco. Some attempts at interpreting the name of Chaco. Journeys of exploration in the Chaco. Geographical discoveries. Ethnographical research among the Chorotis. The name of the tribe. Area of distribution. Physico-anthropological observations. Villages. Huts and their furnishings. Cooking sheds and drying racks. Burning of villages.

El Gran Chaco (the great hunting ground) is the name given to the 131
vast, partly forested, level country lying between the Andes and Rio Paraguay, the northern boundary of which roughly coincides with the parallel of 19 degrees of south latitude, whilst to the south it extends to about the 29th.

The meaning of the name of Chaco is not known with absolute cer- 136
tainty. Of the attempts at its translation so far made, in my opinion the 114
most likely one is, that ›chaco‹ (in quichua ›chacu‹) means an assembly, or the place for an assembly, especially for the purpose of game hunting on a big scale.[1] Against this supposition the Finnish scientist, Karsten, puts forward the objection that the Gran Chaco is nowise abounding in game, and that consequently the application of the name of ›hunting ground‹ to this region would be hardly suitable; in addition, Karsten points out that there are no certain proofs in existence that the civilization of the Incas ever extended to the Chaco.[2] To this I would reply that although, as is known, *the interior* of the Chaco is deficient in game, its outskirts towards the Andes as late as 1902 to such an extent teemed with game, birds especially, that it is only in certain parts of Africa I have seen anything to compare with it. Therefore I think it very probable

[1] Lindman (1), p. 46.
[2] Karsten (2), pp. 23 and 24.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

[136] 114 that hunting expeditions were sent out from the ancient Inca kingdom to the Chaco, among other things for the purpose of obtaining rare and valuable material for feather ornaments. If, in the time of the Incas, the reaches of the Chaco bordering on the Andes were as well supplied with game as was the case when we visited those parts — a very probable thing — the mountain-dwellers had no need to make any hazardous trips into the far interior of the Chaco. These hunters probably only knew the border reaches, and the name then found appropriate to this region has subsequently come to include the whole of the flat country around the Pilcomayo and the Bermejo. That intercourse was carried on between the mountain peoples living within the ancient Peruvian dominions, and the Chaco inhabitants during the Inca period, may with very great probability be gathered from, inter alia, Baron Erland Nordenskiöld's excellent analysis of the civilizations of two Chaco tribes.[1]

The name, Chaco, has also been translated as »the flight», i. e., the place of refuge,[2] but I do not think it very probable that the conquering peoples would have adopted a name that was only applicable from the point of view of a small number of expelled tribes.[3]

At the time of our expedition, the greater part of the Chaco was on the map shown as an unknown territory. Up till then, no white man had followed the course of the Pilcomayo from the Andes to the Paraguay. Since then, great changes have taken place on the Chaco, and our knowledge of this region has been considerably increased. The course of the Pilcomayo has been mapped, and the Bolivian government has established military outposts practically in the middle of the Chaco.

But to this day large tracts of the Chaco are entirely unknown. This may seem strange, considering that the Chaco to the west and to the east borders on regions that for centuries have been visited by Europeans, and now to a great extent brought under the sway of civilization.

That the Chaco still includes immense tracts that are only inhabited by Indians, may, no doubt, be ascribed to the circumstance that the greater part of it is little suitable for colonization. Only on the border, and along certain reaches of the Pilcomayo and the Bermejo, has it been found possible to carry on agriculture to advantage, and, with the exception

[1] Nordenskiöld (11).
[2] Karsten (2), p. 24.
[3] Cf. pp. 29 and 75.

137 The dry-soil forests of the Chaco (figs. 3, 4, 5) consist of, generally, low-growing trees and thorny shrub, the latter often forming deep, impenetrable stretches of jungle. Species of columnar cactus (figs. 5, 6) are fairly common. The bottle tree (Chorisia insignis), which is typical of South American arid regions, is fairly numerously represented, but is never found growing in actual groves (figs. 4, 7). The thorny caraguatá, or chahuar, plant (Bromelia serra) is widely distributed on the Chaco, and is in many respects of great importance to the Indians, its chief and foremost utility being that, from its fibre, excellent yarn can be spun. Of great value to the population of the Chaco are also certain trees, growing in the forest, with edible fruit, of which, perhaps, the algaroba tree (Prosopis alba) is the most important. Game, as a rule, is very scarce in the [136] dry-soil forests; even in a whole day's shooting one may fail to come across more than a few bush partridges or wood pigeons. In some parts, however, ostriches (Rhea americana) are fairly common.

The plains, or steppes (see fig. 8), are often dotted with single tress and shrubs; usually species of acacia. Here and there the fan palm (Copernicia australis) may be seen growing in groves, or even forming whole forests; figs. 9, 10; scattered specimens of this palm are also found in forests that are mainly composed of other trees, fig. 79.

136 In the rainy season, when numerous shallow pools have formed, wading
137 birds may be seen in large numbers, and those parts of the Chaco that are nearest to the Andes, are, at least part of the year, *exceedingly abundant* in wildfowl. Then waders and water birds are, naturally, especially common on and around the flooded marshes that, only during a certain portion of the year, largely form on the Chaco. These marshes mostly have a vegetation of typical marsh plants; but I have also noticed that the species of fan palm, that is common in the Chaco, thrives well enough in such *periodically* swampy ground.

Near the Andes, the forests of the Chaco are made up of tall trees with a luxuriant undergrowth and a great wealth of lianas (figs. 11, 12—14). These forests, which are of an exuberant, tropical, primeval character, abound with game, such as jaguars, pumas, tiger cats, tapirs, wild boar, water pig, deer, ant-bear, armadillos, bush partridges, toucans, parrots, and a number of other birds, suitable for food.

136 The few rivers and watercourses with which the Chaco is supplied, are

[text continues on p. 9]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

136 very abundant in fish, and in their waters, as in most of the larger lagoons, alligators (Caiman sclerops) are present (fig. 15).

101 El Gran Chaco was in beginning of this century the country of the free Indians. Of the many tribes that inhabit this vast region, I have come into contact with Choroti, Chiriguano, Toba, Mataco and Tapiete, but it was only from among the first-mentioned that I had an opportunity to obtain any extensive collection.

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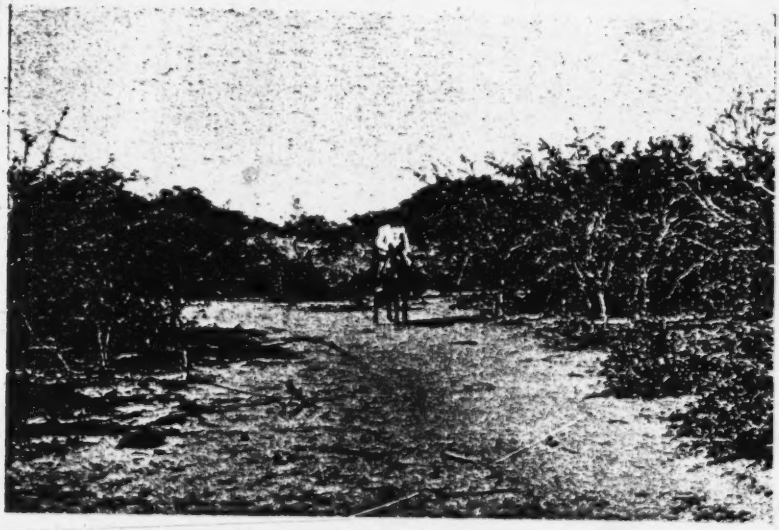

Fig. 3. Dry soil forest region. Gran Chaco. Bolivia. Photo. Rob. Fries.

101 114 In the literature dealing with the Chaco, there was, prior to our expedition, not to be found much information concerning the Choroti. Their tribal name, in the form of »xolota», was, however, known already in the 18th century, when it was, probably for the first time, mentioned by Pedro Lozano, who, in a work published in 1733, enumerates a long string of names of tribes inhabiting the Chaco.[1] In his work, »Explorations dans l'Amerique du Sud», Thouar only gives a few, stray, items of information about the Choroti, he having come across that tribe on the Pilcomayo. The Choroti were, therefore, at the time of our expedition a

[1] Lozano (1).

142 Of the Choroti among whom I carried out my investigations, the men

appeared to be fairly tall of stature,[1] figs. 16—19, 30, whilst the height of the women was remarkably small, figs. 19—22, 30. I took height measurements of ten men and thirteen women, but as the table got lost during the expedition, I am not able to give the maximum and minimum measurements. But I have the computed average heights preserved in my diary, and they are 170 cm for the men, and 152 cm for the women. The height measurements at a later date made of Choroti (who had come to look for work at sugar plantations in Argentina) by Lehmann-Nitsche show an average height of 161.6 for men (aver. of 20 individuals), and for women 155.3 (10 individuals). That Lehmann-Nitsche and I arrived at such appreciably divergent results is because our measurements were taken of so small a number of people. Lehmann-Nitsche having, however, measured twice as many males as I, it may be presumed that the average height obtained by him more nearly approaches the true average for the men of the tribe than does the result obtained through my measurements.

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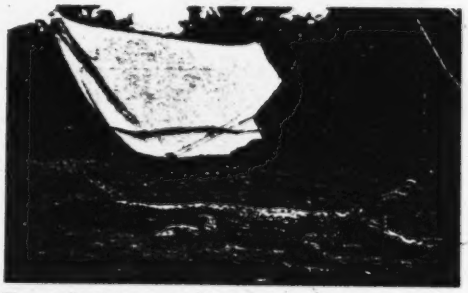

Fig. 15. Spectacle-cayman (Caiman sclerops). Camp at Tatarenda. Gran Chaco. Bolivia. Photo. E. v. R.

[304] The shape of the skull is predominantly dolichocephalic, and shows no traces of artificial deformation.[2] The men, as well as the women, are, as a rule, strongly and proportionately built, although in some individuals the breast is flat and the belly rather big (figs. 17, 37), the latter no doubt [262 146] resulting from the fact that the Choroti largely subsist on roots and fruits, a kind of diet usually producing distension of the stomach. As an example, in the rural districts of Europe it is no rare thing to come across persons, especially children, who, from a too-protracted diet of potatoes, have developed a distended stomach, a so-called »potato belly».

[1] That also among the Indians of the eastern part of the Chaco tall individuals are found, is evident from the following statement by Professor Carl Lindman: »Those Indians whom I saw along the Paraguay, opposite Asuncion and northwards, were to a large extent muscular and well-built, some, even, were very tall of body and athletic looking.» Lindman (1), p. 72.

[2] These items of information have been supplied me by Professor Gustav Retzius, who has examined the Choroti skulls brought home by our expedition.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

136 481 292 I have mentioned that the Choroti do not possess any water-craft, so that when fishing with nets they often have to wade or swim. In doing this, they expose themselves to being attacked by palometa fishes. As a protection for their legs in wading, the Indians occasionally wear a kind of mail stockings of caraguatá (see p. 54), but when they are swimming, they often get badly mauled by these fierce fishes, and I saw several Choroti with enormous scars from the bites of palometas (fig. 53). It also happens, now and again, that Indians, whem swimming, get killed by caymans, which, here and there, are plentiful.

[286 824]

Fig. 118. Mesh-spacer of palo santo (Bulnesia sarmienti). Length 14.9 cm, width 3.0 cm; thickness along longitudinal axis 0.9 cm. The thickness decreases towards the longer edges, which are rounded. Choroti. Gran Chaco. Bolivia. Riksm. 03. 3. 242.

222 In the collection of the fruits, roots and pith of wild plants the Choroti possess an important source of subsistence. The Chaco Indians obtain edible fruits from, inter alia, the algaroba (Prosopis alba), the chañar (Gourliea decortitans), the mistol (Zizyphus mistol) and the tusca (Acacia aroma). The rootstocks of the caraguatá, or chahuar (Bromelia serra), plant are used for food by these Indians, and the same applies to the pith of the fan palm (Copernicia australis). For pulling down within reach the fruit-bearing branches of trees, the Indians make use of wooden hooks with a short arm and a long one, the latter then serving as a handle, whilst the tree branch which is to be bent down, is hooked with the shorter arm of the implement.[1] In digging up the spiny caraguatá plants the Choroti use a forked stick.[2]

[227]

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Fig. 119. Fishing hook of iron, with line of caraguatá fibre. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 238.

Fig. 120. Fish club of palo santo (Handle upwards). Choroti. Gran Chaco. Bolivia. 1/4. Riksm. 03. 3. 87.

At the time of my stay among the Choroti, the part of the tribe with whom I was in touch carried on no other agriculture than the growing of pumpkins in a primi-

[1] Nordenskiöld (11), fig. 3.
[2] Nordenskiöld (13), fig. 49.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

A C 133 river into the interior you will find numerous remains of old river-beds, which in places now form lakes. A few miles from the Andes there is not a stone to be found in the Chaco. The soil consists of fine earth, which is transformed in the dry season into whirling dust, and in the rainy season into mud. In the dry season large tracts are flooded. The Rio Pilcomayo is also of great importance to the Indians on account of the abundance of fish in it.

A C 137 The woods alternate in the Gran Chaco with grassy plains. In some districts there are considerable clumps of palms, not those with paripinnate leaves, which are so useful to the Indians, but with fanshaped leaves, which are of little use. There are no trees from whose bark cloth can be made, as in the primeval forests of N.E. Bolivia. In the woods there grows, however, a spiny plant[1]), known as Caraguatá[2]) or Chahuar[3]). It is of great importance to the Indians, its filaments providing them with material for string rope, clothes etc.

The arrow-grass[4]) which can be used for so many purposes, is lacking in the Chaco. Edible wild fruits occur in the Chaco in an abundance that is quite unusual in S. America. Some of these, such as Algarrobo[5]) Chañar[6]) Tusca[7]) and Mistol[8]), are of supreme importance to the Indians. The abundance of wild fruits, as well as the intensive dryness during part of the year and the floods during another part, account for agriculture being so undeveloped in the Chaco.

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[1]) Bromelia.
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[8]) Zizyphus Mistol.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

A C 136

tant bags are field-voles, and in some places ostriches and small deer.

A C 132

The Chaco is intersected by the tropic of Capricorn, and is as a rule very warm. When the cold S. wind sweeps over the plains, however, it is bitterly cold, especially in May and June, and then the Indian, too, likes to wrap himself up in something warm.

000

A civilization very similar to that of the tribes here mentioned is possessed by their neighbours, the Toba, Mataco, Tapiete and Lengua, as well as some other Indians belonging to that part of the Chaco which is included in the Republic of Paraguay.

In reality the present work deals, not only with the civilization of the Choroti and Ashluslay Indians, but equally with that of the Mataco, Toba, Tapiete and Lengua.

In the Chaco Boreal dwell the little known Tsirakua Indians. Near the Andes dwell the Chiriguano and Chané. The former of these, who are Guarani Indians, emigrated to these districts as late as the early 16th century. They came from the territory E. of the Rio Paraguay.[1])

It was the Chané Indians, at least in part, that had to yield to the Chiriguano the territories where the latter settled at the beginning of the 16th century, and where they still live to-day. They made slaves of the Chané. Remains of this tribe still dwell, as we have mentioned, in the same parts as the Chiriguano. They are now Guaranified.[2]) Yet a few of the Chané still have something of their original language. It is an Arawak language, and thus belongs to the most widely spread linguistic family in the whole of America. At the beginning of the 18th century numerous Chané Indians were still living in the Chaco Boreal, not far from the Rio Paraguay, where they were vassals of the warlike Mbayá. They are described as being of a higher civilization than their masters. Sánchez Labra-

[1]) Nordenskiold (13).

[2]) Nordenskiold, (8 B) p. 137.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti
Ashluslay SK5

curious that the Indians in these swampy parts should have worn leather sandals, which would soon have rotted away in a damp climate. When I passed from the mountains into the primeval forests of the border country of Peru and Bolivia in 1904—1905, my carriers had to take off their sandals at every brook we had to wade through, to keep them from rotting.

Also the (03) Tapuya, but not the Tupinambá on the Brazilian coast, had sandals. Of the former MARCGRAV[1]) writes: «Loco calceorum nostratium, è certo cortice *Curagua* ipsis vocato, factis utuntur atque illos vocant *Miapapacaba*, Lusitani autem *Alpargatas*.» Of Indians in the same region FREI VITAL DE FRESCAROLO[2]) mentions sandals out of Caraguatá.

It is probable that the Indians in the Chaco originally learnt the use of sandals in their present form from the culture zone in the west. Foot-gear in general, however, to judge from the wide-spread and partly sporadic use of it, seems to be a very old cultural element in S. America. Outside the old cultural zone in the west, where slippers were also worn, any other foot-gear than sandals is rare. In the form of very primitive leather shoes we only find it among the (26) Patagonians[3]) and the (27) Ona[4]).

In the swampy districts the Ashluslay wore a kind of *stockings*, made in a curious way, as a protection against the greedy and dangerous palometa fish (the pompano). I have not seen such stockings elsewhere, and have only seen a mention of them in a description from Venezuela, as early as the 16th century, SIMON[5]) mentioning them from the voy-

[1]) p. 271.

[2]) p. 115. «Alparcatas de cravatá, calçado com que andão nos matos.»

[3]) PIGAFETTA, p. 12.

[4]) GALLARDO, p. 155.

[5]) «. . lleuando algunos de los soldados algunas calças enteras de red con muy gruesos nudos, que se hallaron entre el demas pillaxe de aquella gente, que vsaban dellas en aquella Prouincia, para entrar a pescar en las

137 The dry-soil forests of the Chaco (figs. 3, 4, 5) consist of, generally, low-growing trees and thorny shrub, the latter often forming deep, impenetrable stretches of jungle. Species of columnar cactus (figs. 5, 6) are fairly common. The bottle tree (Chorisia insignis), which is typical of South American arid regions, is fairly numerously represented, but is never found growing in actual groves (figs. 4, 7). The thorny caraguatá, or chahuar, plant (Bromelia serra) is widely distributed on the Chaco, and is in many respects of great importance to the Indians, its chief and foremost utility being that, from its fibre, excellent yarn can be spun. Of great value to the population of the Chaco are also certain trees, growing in the forest, with edible fruit, of which, perhaps, the algaroba tree (Prosopis alba) is the most important. Game, as a rule, is very scarce in the [136] dry-soil forests; even in a whole day's shooting one may fail to come across more than a few bush partridges or wood pigeons. In some parts, however, ostriches (Rhea americana) are fairly common.

The plains, or steppes (see fig. 8), are often dotted with single tress and shrubs; usually species of acacia. Here and there the fan palm (Copernicia australis) may be seen growing in groves, or even forming whole forests; figs. 9, 10; scattered specimens of this palm are also found in forests that are mainly composed of other trees, fig. 79.

136 137 In the rainy season, when numerous shallow pools have formed, wading birds may be seen in large numbers, and those parts of the Chaco that are nearest to the Andes, are, at least part of the year, *exceedingly abundant* in wildfowl. Then waders and water birds are, naturally, especially common on and around the flooded marshes that, only during a certain portion of the year, largely form on the Chaco. These marshes mostly have a vegetation of typical marsh plants; but I have also noticed that the species of fan palm, that is common in the Chaco, thrives well enough in such *periodically* swampy ground.

Near the Andes, the forests of the Chaco are made up of tall trees with a luxuriant undergrowth and a great wealth of lianas ((figs. 11, 12—14). These forests, which are of an exuberant, tropical, primeval character, abound with game, such as jaguars, pumas, tiger cats, tapirs, wild boar, water pig, deer, ant-bear, armadillos, bush partridges, toucans, parrots, and a number of other birds, suitable for food.

136 The few rivers and watercourses with which the Chaco is supplied, are

[text continues on p. 9]

I: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

very abundant in fish, and in their waters, as in most of the larger lagoons, alligators (Caiman sclerops) are present (fig. 15).

El Gran Chaco was in beginning of this century the country of the free Indians. Of the many tribes that inhabit this vast region, I have come into contact with Choroti, Chiriguano, Toba, Mataco and Tapiete, but it was only from among the first-mentioned that I had an opportunity to obtain any extensive collection.

Fig. 3. Dry soil forest region. Gran Chaco. Bolivia. Photo. Rob. Fries.

In the literature dealing with the Chaco, there was, prior to our expedition, not to be found much information concerning the Choroti. Their tribal name, in the form of »xolota», was, however, known already in the 18th century, when it was, probably for the first time, mentioned by Pedro Lozano, who, in a work published in 1733, enumerates a long string of names of tribes inhabiting the Chaco.[1] In his work, »Explorations dans l'Amerique du Sud», Thouar only gives a few, stray, items of information about the Choroti, he having come across that tribe on the Pilcomayo. The Choroti were, therefore, at the time of our expedition a

[1] Lozano (1).

J: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Fig. 4. Bottle tree. Chorisia insignis. Dry soil forest region between Caiza and Fort Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

Fig. 5. Cactus (Cereus and leaf-shaped Opuntia). Dry soil forest region between Caiza and Fort Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

(11)

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 6. Columnar cactus in the dry soil forest region. Boundary district between the Andes and Gran Chaco. Bolivia. Photo. E. v. R.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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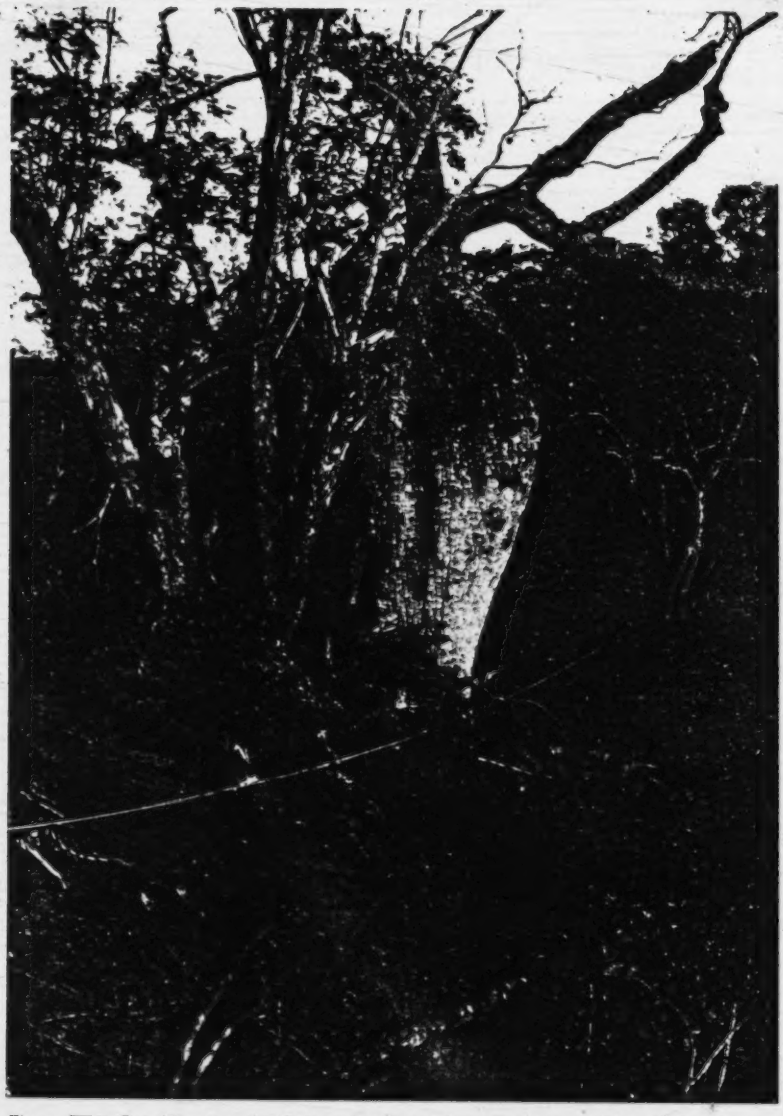

Fig. 7. Bottle Tree (Chorisia insignis). From the dry soil forest area between Caiza and Fort Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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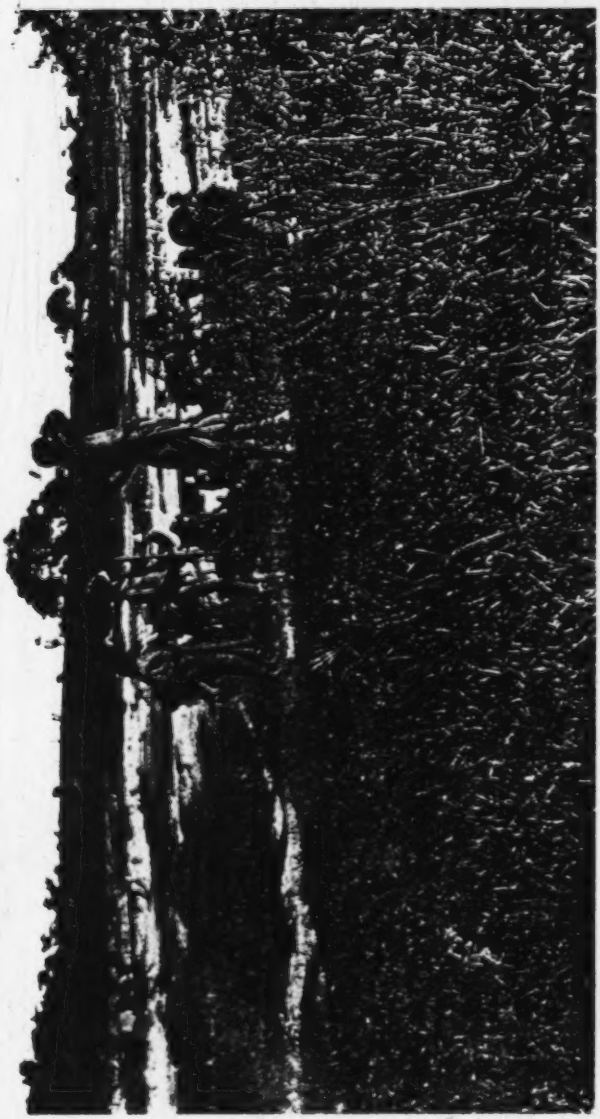

Fig. 8. Steppe with acacias. In foreground, watchful Choroti Indians. Tatarenda, Gran Chaco, Bolivia. Photo. F. v. R.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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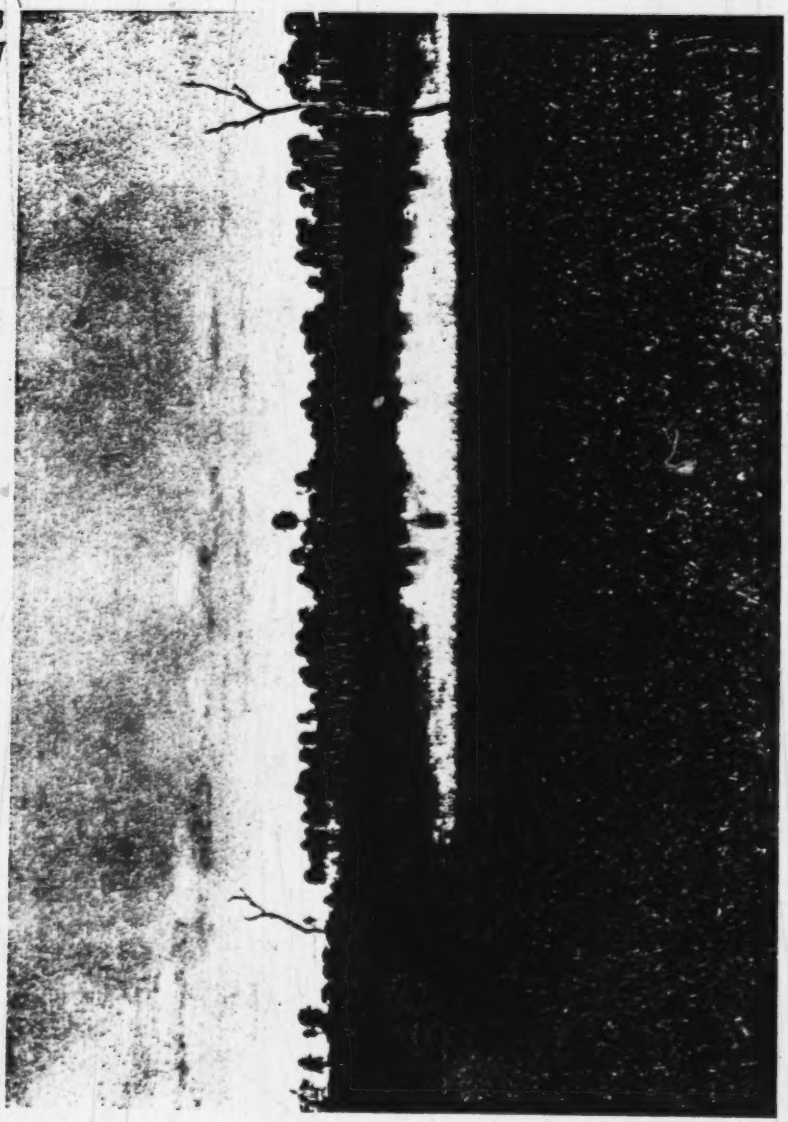

Fig. 9. Lagoon near a grove of fan palms (Copernicia australis). Tatarenda. Gran Chaco, Bolivia Photo. A. v. R.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 10. Grove of fan-palms (Copernicia australis). Neighbourhood of Tatarenda. Gran Chaco. Bolivia. Photo. Rob. Fries.

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Fig. 12 Primeval forest in the district south of Tartagal, Gran Chaco, Argentina. Photo, E. v. R.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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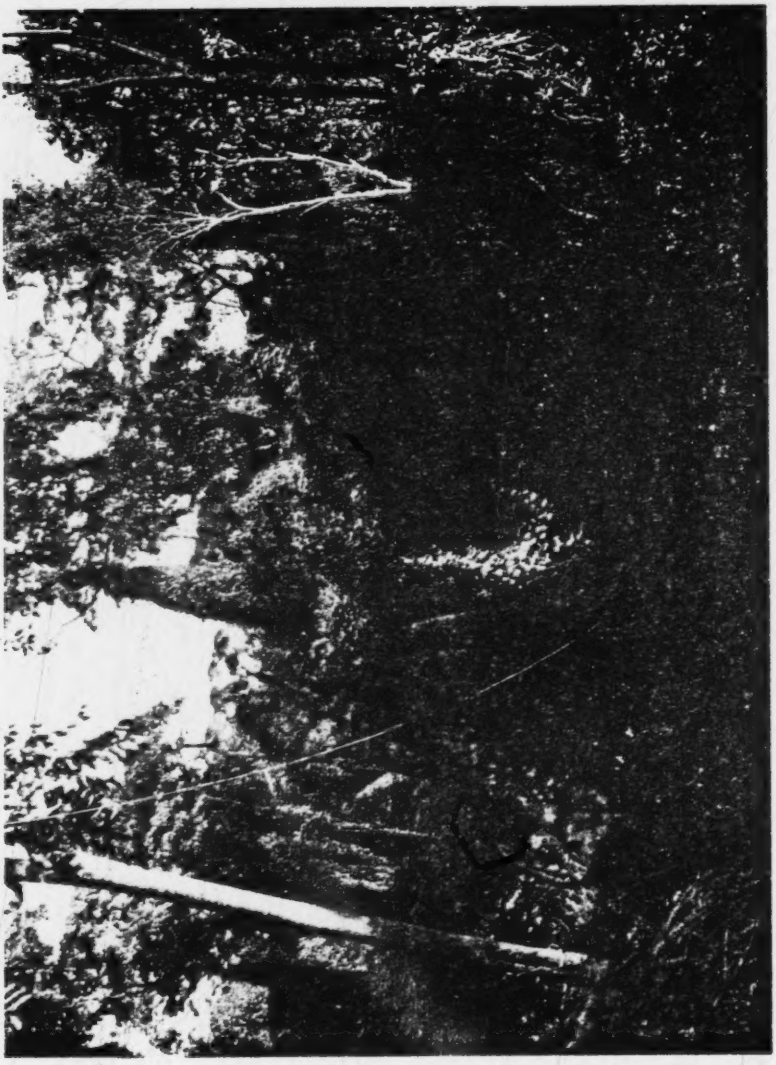

Fig. 13. Primeval forest covered with lianas. To the left, in foreground, these form a net over a young, growing tree; in the background there is visible a forest giant, the trunk of which is perfectly hidden beneath a cone-shaped, compact covering of interwoven creepers. Primeval forest tract, south of Tartagal, Gran Chaco, Argentina. Photo. E. v. K.

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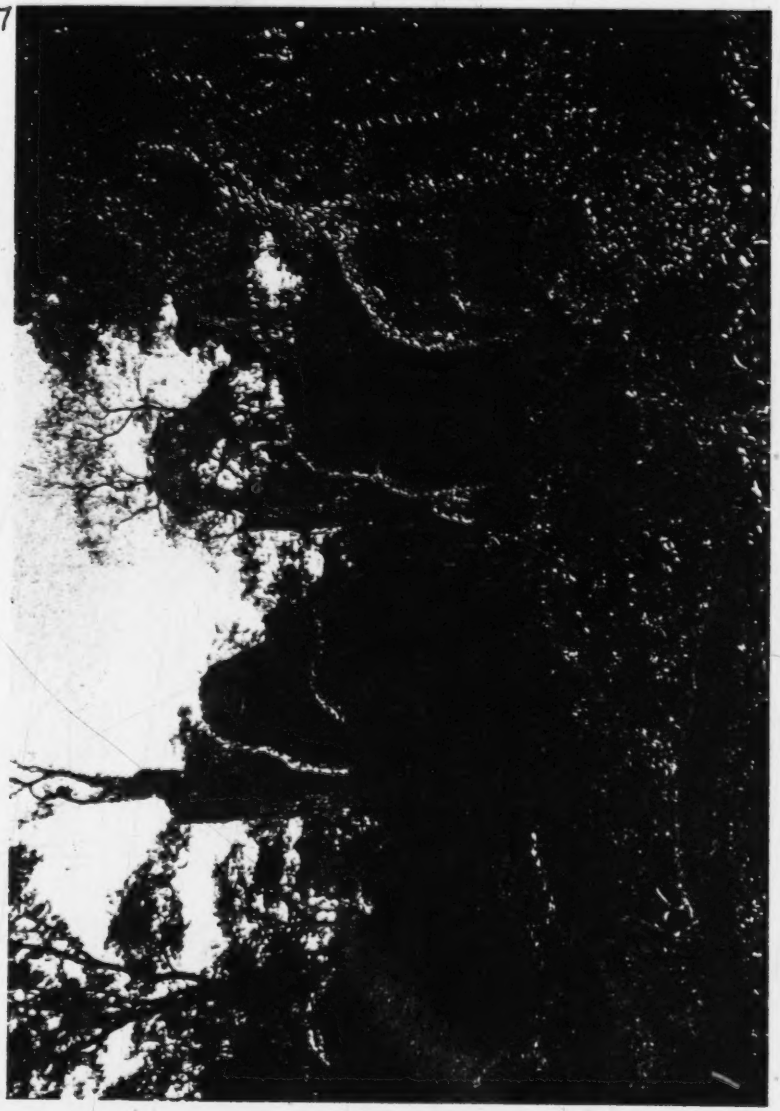

Fig. 14. Primeval forest, with trees completely covered with, and killed by, lianas. District south of Tartagal, Gran Chaco, Argentina. Photo, E. v. R.

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2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

A C 133 river into the interior you will find numerous remains of old river-beds, which in places now form lakes. A few miles from the Andes there is not a stone to be found in the Chaco. The soil consists of fine earth, which is transformed in the dry season into whirling dust, and in the rainy season into mud. In the dry season large tracts are flooded. The Rio Pilcomayo is also of great importance to the Indians on account of the abundance of fish in it.

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142 The skin colour in adult Choroti is brown, newly born children have light yellowish-brown skin, but it soon gets darker, so that even rather young children, figs. 21 and 22, seem to be of a very dark colour. The hair is lank, and the iris dark brown. From Lehmann-Nitsche's and my own anthropological observations I have compiled the following table.

[141]

The Choroti: some physical features.

Sex	Average height, cm	Shape of skull	Skin colour, von Luschan's scale	Hair colour, Fischer's scale	Iris, Martin's scale
Men.....	[1] 161.6 [2] 170.0	Dolichocephalic, predominantly	22, predominantly	4, predominantly	4, predominantly
Women ...	[3] 153.3 [4] 152.0	Dolichocephalic, predominantly	18, predominantly	4, predominantly	4, predominantly

145 [805] As the Choroti do not keep count of the age of their children, nor of their own, it is impossible to obtain, by direct questioning, from these Indians any information as to the relation of puberty to age in individuals. One of our Creole servants, who had lived a long time on the Chaco, has, however, told me that Indian children arrive early at physical [582] development (fig. 24), and that the girls are considered marriageable after their first menstruation, which, according to my informant, occurs at the age of ten to twelve. And, according to the same person's statement, the boys are ripe for marrying at the age of about fifteen. The blossoming-time of the women is very brief, and as they grow old they often become repulsively ugly. It is notable that the old women, as a rule, were thin of body, whilst elderly men often were inclined to stoutness.

[621] 361 The Choroti live together in villages. The selection of the village site depends primarily on the supply of water and food, and, in the case of cattle-owning Indians, also on grazing conditions. Often the huts are built alongside shade-giving trees (fig. 25). The fan palm found in the [824] Chaco (Copernicia australis), (fig. 10,) being valuable to the Indians on account of its easily worked wood, its pith (used for food), and its leaves

[1] Acc. to Lehmann-Nitsche's measurements of 20 individuals.
[2] » » the Author's » » 10 »
[3] » » Lehmann-Nitsche's » » 10 »
[4] » » the Author's » » 13 »

[text continues on p. 37]

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
Choroti SK6

CHAPTER II.

General characteristics and material culture.

In their physical characteristics the *Choroti* and the *Mataco* show the same affinity as appears in their languages. Both of them are strongly built and of middle height, the Mataco somewhat taller than the Choroti. The average height of the former seems to be about 163 or 164 cm. for the men and 154 or 155 cm. for the women; of the latter about 162 or 163 cm. for the men and 152 or 153 cm. for the women. In their sturdy appearance the Mataco resemble the mountain Indians, and in former times there has probably been intermarriage between them and the Quichuas. The hair of both tribes is black, coarse and straggling and is worn long by both men and women, except when it is temporarily cut short for ceremonial reasons. The eyes are dark-brown, the nose somewhat flattened, and the features of the face generally irregular, especially among the Mataco. Both tribes know the custom of tattooing the face, the women being always tattooed, the men only in some cases, and never as completely as the women.

I need not dwell upon the physical characteristics of the *Tobas* since they have been described by nearly all authors ever since Lozano. They certainly form an easily recognisable type of Indian, differing considerably from the rest of the Chaco tribes, one salient feature being their remarkably tall and strong build of body. The Tobas are in fact among the tallest of all South American Indians, being in this respect comparable with the ancient Patagonians, to whom they were probably related, as well as with the present Ona Indians of the mainland of Tierra del Fuego. The physical anthropology of the Tobas, just as that of the Mataco and the Choroti, has been studied scientifically by the German anthropologist Dr. Lehmann-Nitsche.[1])

[1]) Lehmann-Nitsche, R. *Estudios antropológicos sobre los Chiriguanos, Chorotes, Matacos y Tobas* (*Anales del Museo de La Plata*. Buenos Aires, 1908).

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

ETHNOGRAPHICAL RESEARCH WORK

DURING THE SWEDISH CHACO-CORDILLERA-EXPEDITION 1901-1902

142
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BY

COUNT ERIC VON ROSEN

STOCKHOLM. SOLD BY C. E. FRITZE LTD
BOOKSELLERS TO THE COURT

[Front cover]

142 Of the Choroti among whom I carried out my investigations, the men

appeared to be fairly tall of stature,[1] figs. 16—19, 30, whilst the height of the women was remarkably small, figs. 19—22, 30. I took height measurements of ten men and thirteen women, but as the table got lost during the expedition, I am not able to give the maximum and minimum measurements. But I have the computed average heights preserved in my diary, and they are 170 cm for the men, and 152 cm for the women. The height measurements at a later date made of Choroti (who had come to look for work at sugar plantations in Argentina) by Lehmann-Nitsche show an average height of 161.6 for men (aver. of 20 individuals), and for women 155.3 (10 individuals). That Lehmann-Nitsche and I arrived at such appreciably divergent results is because our measurements were taken of so small a number of people. [136] Lehmann-Nitsche having, however, measured twice as many males as I, it may be presumed that the average height obtained by him more nearly approaches the true average for the men of the tribe than does the result obtained through my measurements.

Fig. 15. Spectacle-cayman (Caiman sclerops). Camp at Tatarenda. Gran Chaco. Bolivia. Photo. E. v. R.

[304] The shape of the skull is predominantly dolichocephalic, and shows no traces of artificial deformation.[2] The men, as well as the women, are, as a rule, strongly and proportionately built, although in some individuals the breast is flat and the belly rather big (figs. 17, 37), the latter no doubt [142 146] resulting from the fact that the Choroti largely subsist on roots and fruits, a kind of diet usually producing distension of the stomach. As an example, in the rural districts of Europe it is no rare thing to come across persons, especially children, who, from a too-protracted diet of potatoes, have developed a distended stomach, a so-called »potato belly».

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Men	[1] 161.6 [2] 170.0	Dolichocephalic, predominantly	22, predominantly	4, predominantly	4, predominantly
Women ...	[3] 153.3 [4] 152.0	Dolichocephalic, predominantly	18, predominantly	4, predominantly	4, predominantly

145 [805] As the Choroti do not keep count of the age of their children, nor of their own, it is impossible to obtain, by direct questioning, from these Indians any information as to the relation of puberty to age in individuals. One of our Creole servants, who had lived a long time on the Chaco, has, however, told me that Indian children arrive early at physical [582] development (fig. 24), and that the girls are considered marriageable after their first menstruation, which, according to my informant, occurs at the age of ten to twelve. And, according to the same person's statement, the boys are ripe for marrying at the age of about fifteen. The blossoming-time of the women is very brief, and as they grow old they often become repulsively ugly. It is notable that the old women, as a rule, were thin of body, whilst elderly men often were inclined to stoutness.

[621] 361 The Choroti live together in villages. The selection of the village site depends primarily on the supply of water and food, and, in the case of cattle-owning Indians, also on grazing conditions. Often the huts are built alongside shade-giving trees (fig. 25). The fan palm found in the [824] Chaco (Copernicia australis), (fig. 10,) being valuable to the Indians on account of its easily worked wood, its pith (used for food), and its leaves

[1] Acc. to Lehmann-Nitsche's measurements of 30 individuals.
[2] » » the Author's » » 10 »
[3] » » Lehmann-Nitsche's » » 10 »
[4] » » the Author's » » 13 »

[text continues on p. 37]

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Fig. 16. A man, in front of his hut. Choroti. Gran Chaco, Bolivia. Photo. E. v. R.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 17. A man, with frontlet of birdskin. Choroti. Tatarenda camp. Gran Chaco. Bolivia. Photo. E. v. R.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

(material for roofing huts), the Indians are apt to build their villages in the proximity of some grove, or forest, of palms (›palmar‹). As a case in instance, the Choroti village at Tatarenda was situated quite close to a palm grove, and not very far from a largish palm forest. It is of importance that algaroba trees should be growing in the neighbourhood, as the fruit of this tree plays a prominent part in the food arrangements of these Indians.

The huts are of a very primitive character, and are built in the following manner; With a digging-stick (fig. 27) of hard, heavy wood, a succession of holes is dug, or jabbed, in the ground, so as to form a circle with a diameter of 2 metres or upwards. In each of these holes is planted an unlopped, bent-grown branch, thick end downwards, so that the tips of the branch point towards the centre of the circle. By this means a cupola-shaped frame is formed (fig. 26). This frame is covered with a thick layer of palm leaves and grass (figs. 16, 25), unless palm leaves are difficult to obtain, when the hut will be covered with grass only, although huts thatched in this way have less rain resistance. But even the most carefully built Choroti huts are, however, poor enough dwellings which, in any heavy downpour of rain, are unable to keep those inside them from a wetting.

Fig. 18. A man holding a pestle in his hands. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

The huts have one, or even two, entrances, about one metre in height (figs. 16, 25), but huts of the largest size are sometimes provided with several entrances. A sort of porch, constructed of branches and grass, may occasionally be built out from the entrance. When several huts are close together, they may not unfrequently be connected with each other by means of covered passages, or tunnels, built similarly to the huts.

The latter do not contain many utensils. Ranged along the wall, bowls made of gourd shell, a few clay vessels and a wooden mortar, are generally seen. In prettily knitted net bags of spun caraguatá fibre,[1] the Choroti keep all manner of small articles, such as mussel-shell spoons,

[1] Caraguatá, or chahuar (chaguar), Bromelia serra, is, as I have already pointed out, especially common in the Chaco.

wooden sticks for fire-drilling, toilet articles, magic rattles, etc.

352 [513] wooden sticks for fire-drilling, toilet articles, magic rattles etc. Contrary to the Chiriguano, the Choroti do not use bedsteads or hammocks, but sleep on the ground, with only an animal skin, or a woollen mantle between themselves and the ground.

● [142 291]

Fig. 19. A man, with his daughters. Choroti. From the dry soil forest region between Caiza and Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

343 251 At the cooking-fires in front of the huts, the Choroti now and then erect square sheds, with flat, grass-covered roofs. These sheds are constructed like food-storing racks (fig. 28), and are used both as a protection from the sun and as sleeping places during hot nights. According to Nordenskiöld, the Indians on the Pilcomayo use the roofs of these sheds for drying fish on.[1] I am of opinion that these sheds, originally, were only designed for the storing, drying, smoking or roasting of fish, and that, therefore, their use as shade-givers or sleeping-shelters is only

[1] Nordenskiöld (18), p. 36.

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Fig. 21. A young woman suckling her baby. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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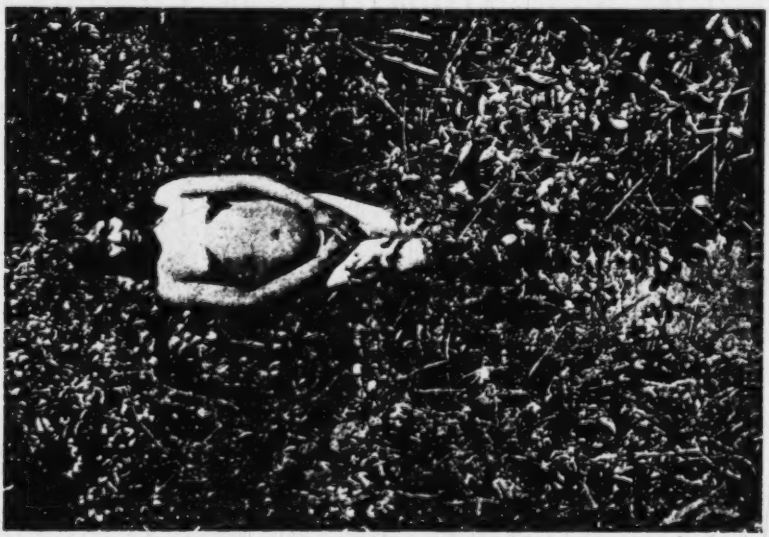

Fig. 20. A girl. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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Fig. 22. A woman, with infant. Note that the woman's ear-lobes are pierced, but that she is wearing no ear-lobe discs. Choroti, Gran Chaco, Bolivia. Photo. E. v. R.

Fig. 23. A boy and a girl (probably about 7 and 8 years old). Gran Chaco. Bolivia. Photo. E. v. R.

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Fig. 24. A boy and a girl (age probably about 10). The boy is wearing a frontlet and armlets, made from palm leaves. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 30. Men and women. Back row (8 individuals): men and youths. Front row (4 individuals): women. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

CHAPTER II.

The Choroti (2). Dress and ornaments.

Men's dress. Garments of protection against arrows, fish-bites and thorny plants. Hair-dressing. Frontlets. Hair-nets. Head ornaments of feathers, etc. Ear-lobe discs. The ear-boring custom. Necklaces. Armlets. Anklets. Finger rings. Dress and ornaments of the women. Tattooing. Painting of the face. Cutting the hair short. Pulling out of hairs. Toilet articles and their receptacles. Lack of cleanliness. Phthiriophagy.

291 On account of the warm climate of the Chaco, the Choroti do not require much in the way of dress. The smaller children are always completely naked (fig. 23), and when the men are engaged in any harder kind of work, they then usually only wear a woollen apron, passed between the legs and fastened in front and behind to a string made of caraguatá fibre or wool, tied round the waist (figs. 16, 18 and 30). Occasionally they fasten pieces of cloth, of different sizes, round the waist without tucking them between the legs (fig. 30). I have also seen Choroti men wearing broad, fringed, leather belts (fig. 31), but these skirt-like garments seemed to be of rather rare

[p. 49]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

286 291 the same colour on either side. Beside these six groups of stripes, there is a thin, greyish white stripe running along each of the longer edges of the mantle. The garment is woven in one piece. In the centre of the

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Fig. 32. Choroti Indians. Gran Chaco. Bolivia. Photo. E. v. R.

mantle there are figures sewn with reddish brown, woollen-yarn (fig. 34), probably property marks.[1]

291 When engaged in work or pastimes, the Choroti men usually take off their mantles. In »our» Choroti village we therefore always saw a large proportion of the men going about practically naked (figs. 16, 18 and 171).

[1] Cf. Nordenskiöld (13), p. 32.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

292 302 feathers, tied inside a woven or plaited fillet, usually no more than a centimetre wide, of coarse caragnatá, or woollen-yarn (fig. 45).

And it is also principally at dances that the men of the Choroti wear a sort of knitted skullcaps of woollen-yarn, net-like, and with a chin strap.

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Fig. 39. A man with a woven frontlet of wool (greyish-white and brownish-black), and ear-lobe discs of wood. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

531 These hair-nets are often studded with snail-shell spangles (fig. 46), or the chin straps decorated with down (fig. 47). With the magic character of these and other ornaments from the Chorotis, I shall deal in a later chapter.

[should be Choroti — analyst]

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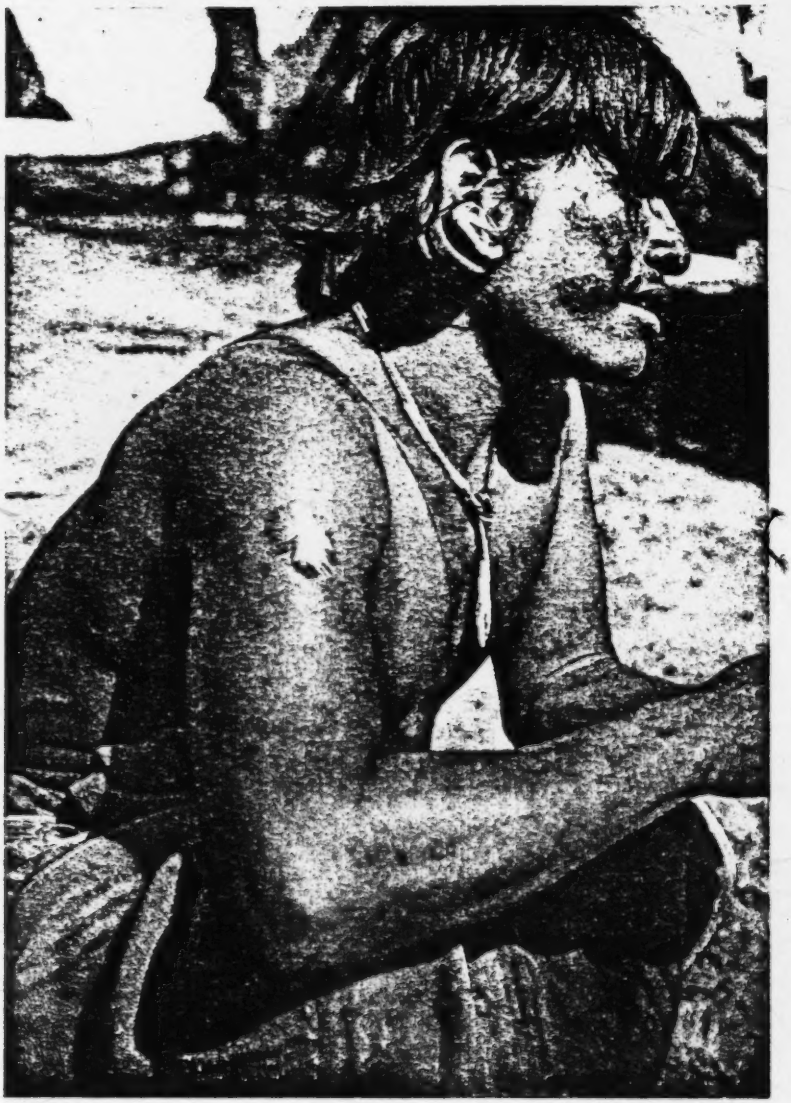

Fig. 53. A man with ear-lobe discs, set with pieces of tin. On his right upper arm is seen the scar from the terrible bite of a palometa fish (Serrosalmo sp.). Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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1: Rosén E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 61. Choroti girls, wearing »tipoys» from the hips. The girl farthest on the left is wearing a necklace of porcelain buttons. The other necklaces consist of glass beads. Gran Chaco. Bolivia. Photo. E. v. R.

Fig. 62. Choroti girls with »tipoys» fastened over the shoulders with cactus spines. The necklaces are of glass beads. Gran Chaco. Bolivia. Photo. E. v. R.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 89. Woman taking lice from her husband's head. Choroti on their wandering towards the Pilcomayo. Dry-soil forest region between Caiza and Fort Crevaux. Gran Chaco, Bolivia. Photo. E. v. K.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 152. A Choroti girl who has put decayed tree stumps on top of the fire in order to preserve it until again needed. Choroti, Gran Chaco, Bolivia. Photo. E. v. R.

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Fig. 179. A girl, and the lover she has chosen for herself. Choroti. Gran Chaco, Bolivia. Photo. E. v. R.

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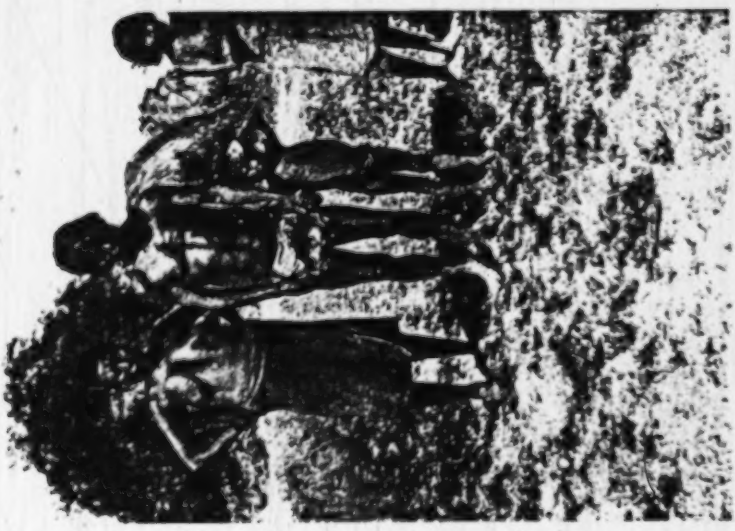

Fig. 178. A chief, with his son and two of his three wives. Choroti. Gran Chaco, Bolivia. Photo. E. v. R.

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2: Karsten E-5 (1911-1913)1932 S17 Mataco S17
Toba SI 12
Choroti SK6

CHAPTER II.

General characteristics and material culture.

In their physical characteristics the *Choroti* and the *Mataco* show the same affinity as appears in their languages. Both of them are strongly built and of middle height, the Mataco somewhat taller than the Choroti. The average height of the former seems to be about 163 or 164 cm. for the men and 154 or 155 cm. for the women; of the latter about 162 or 163 cm. for the men and 152 or 153 cm. for the women. In their sturdy appearance the Mataco resemble the mountain Indians, and in former times there has probably been intermarriage between them and the Quichuas. The hair of both tribes is black, coarse and straggling and is worn long by both men and women, except when it is temporarily cut short for ceremonial reasons. The eyes are dark-brown, the nose somewhat flattened, and the features of the face generally irregular, especially among the Mataco. Both tribes know the custom of tattooing the face, the women being always tattooed, the men only in some cases, and never as completely as the women.

I need not dwell upon the physical characteristics of the *Tobas* since they have been described by nearly all authors ever since Lozano. They certainly form an easily recognisable type of Indian, differing considerably from the rest of the Chaco tribes, one salient feature being their remarkably tall and strong build of body. The Tobas are in fact among the tallest of all South American Indians, being in this respect comparable with the ancient Patagonians, to whom they were probably related, as well as with the present Ona Indians of the mainland of Tierra del Fuego. The physical anthropology of the Tobas, just as that of the Mataco and the Choroti, has been studied scientifically by the German anthropologist Dr. Lehmann-Nitsche.[1])

[1]) Lehmann-Nitsche, R. *Estudios antropológicos sobre los Chiriguanos, Chorotes, Matacos y Tobas* (*Anales del Museo de La Plata*. Buenos Aires, 1908).

113, 143

Chiriguano SF10
Choroti SK6 ●
Mataco SI7
Tehuelche SH5
Caraja SP9
Tucano SQ19
Guarani SM4
Timbira SO8
Araucanians SG4
Paez SC15
Canari SD4
Jivaro SD9
Aymara SF5
Ona SH4
Yahgan SH6

/For information on genic locations based on Streng's diagram of co-ordinates of the blood groups of the natives of South America, see: 4: Hill et al., SS18 Warao, Category 116, pp. 107-114./

142 The skin colour in adult Choroti is brown, newly born children have light yellowish-brown skin, but it soon gets darker, so that even rather young children, figs. 21 and 22, seem to be of a very dark colour. The hair is lank, and the iris dark brown. From Lehmann-Nitsche's and my own anthropological observations I have compiled the following table.

The Choroti: some physical features.

[141]

Sex	Average height, cm	Shape of skull	Skin colour, von Luschan's scale	Hair colour, Fischer's scale	Iris, Martin's scale
Men.....	[1] 161.6 [2] 170.0	Dolichocephalic, predominantly	22, predominantly	4, predominantly	4, predominantly
Women ...	[3] 155.3 [4] 152.0	Dolichocephalic, predominantly	18, predominantly	4, predominantly	4, predominantly

145 [805] As the Choroti do not keep count of the age of their children, nor of their own, it is impossible to obtain, by direct questioning, from these Indians any information as to the relation of puberty to age in individuals. One of our Creole servants, who had lived a long time on the Chaco, has, however, told me that Indian children arrive early at physical [582] development (fig. 24), and that the girls are considered marriageable after their first menstruation, which, according to my informant, occurs at the age of ten to twelve. And, according to the same person's statement, the boys are ripe for marrying at the age of about fifteen. The blossoming-time of the women is very brief, and as they grow old they often become repulsively ugly. It is notable that the old women, as a rule, were thin of body, whilst elderly men often were inclined to stoutness.

[621] 361 The Choroti live together in villages. The selection of the village site depends primarily on the supply of water and food, and, in the case of cattle-owning Indians, also on grazing conditions. Often the huts are built alongside shade-giving trees (fig. 25). The fan palm found in the [824] Chaco (Copernicia australis), (fig. 10,) being valuable to the Indians on account of its easily worked wood, its pith (used for food), and its leaves

[1] Acc. to Lehmann-Nitsche's measurements of 30 individuals.
[2] » » the Author's » » 10 »
[3] » » Lehmann-Nitsche's » » 10 »
[4] » » the Author's » » 13 »

[text continues on p. 37]

142 Of the Choroti among whom I carried out my investigations, the men

appeared to be fairly tall of stature,[1] figs. 16—19, 30, whilst the height of the women was remarkably small, figs. 19—22, 30. I took height measurements of ten men and thirteen women, but as the table got lost during the expedition, I am not able to give the maximum and minimum measurements. But I have the computed average heights preserved in my diary, and they are 170 cm for the men, and 152 cm for the women. The height measurements at a later date made of Choroti (who had come to look for work at sugar plantations in Argentina) by Lehmann-Nitsche show an average height of 161.6 for men (aver. of 20 individuals), and for women 155.3 (10 individuals). That Lehmann-Nitsche and I arrived at such appreciably divergent results is because our measurements were taken of so small a number of people. [136] Lehmann-Nitsche having, however, measured twice as many males as I, it may be presumed that the average height obtained by him more nearly approaches the true average for the men of the tribe than does the result obtained through my measurements.

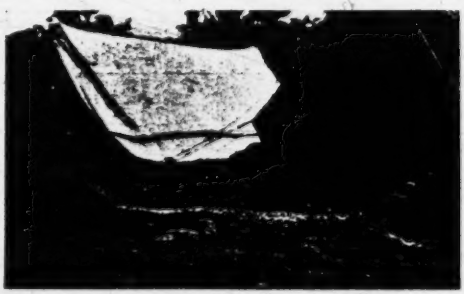

Fig. 15. Spectacle-cayman (Caiman sclerops). Camp at Tatarenda. Gran Chaco. Bolivia. Photo. E. v. R.

[304] The shape of the skull is predominantly dolichocephalic, and shows no traces of artificial deformation.[2] The men, as well as the women, are, as a rule, strongly and proportionately built, although in some individuals the breast is flat and the belly rather big (figs. 17, 37), the latter no doubt [262 146] resulting from the fact that the Choroti largely subsist on roots and fruits, a kind of diet usually producing distension of the stomach. As an example, in the rural districts of Europe it is no rare thing to come across persons, especially children, who, from a too-protracted diet of potatoes, have developed a distended stomach, a so-called »potato belly».

[1] That also among the Indians of the eastern part of the Chaco tall individuals are found, is evident from the following statement by Professor Carl Lindman: »Those Indians whom I saw along the Paraguay, opposite Asuncion and northwards, were to a large extent muscular and well-built, some, even, were very tall of body and athletic looking.» Lindman (1), p. 72.

[2] These items of information have been supplied me by Professor Gustav Retzius, who has examined the Choroti skulls brought home by our expedition.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
Choroti SK 6

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casually committed with another man rarely caused him to divorce his wife; divorce took place only when she continued to maintain illicit relations with other men. The fact that among the Tobas polygamy is sanctioned by custom seems to have a tendency to make matrimonial unions looser than among the monogamous Choroti. But in all tribes the rule is that marriage lasts for life.

C 593 152

If the women in general seemed to be more faithful in marriage than the men, this was in part due to the fact that in the former jealousy was

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Young Toba woman. Bolivian Chaco.

a very prominent quality. After the Choroti girl has made her choice of a partner, she faithfully keeps to him and jealously watches his conduct towards other women. If she suspects him of being unfaithful, she will soon remind him of his duty towards his own wife. If she discovers him in illicit practices, for instance in another man's house, or taking part in the dances, she at once seizes him by the hair and drags him to his own home. This is in fact the way in which the Choroti women generally treat their unfaithful husbands, that is to say, by seizing them by the long hair and taking them home. I never noticed that a man treated in this somewhat rough way made any resistance. The submissive attitude of

2: Karsten E-5 (1911-1913)1932 SI7 Mataco
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Chorotis K7

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the men in such cases showed to what extent the women dominate the home life of the Choroti. There is not, among these Indians, any punishment for adultery as such, for the very reason that punishment in any form is unknown within the tribe. — Among the Tobas again a man may beat his wife if she commits adultery.

C 578 152

On the other hand, if a Choroti woman gets to know of a female rival, the result will in all probability be a fight between the two women, who use a sort of boxing glove of hide, or small daggers consisting of the leg-bone of a deer pointed at the end. The same custom is followed by the Mataco and the Toba women, in whom jealousy is likewise a prominent quality. Among the Tobas particularly, fights between girls who have fallen in love with the same man are of frequent occurrence. Similarly, if a married woman gets to know that her husband maintains illicit relations with another woman, the consequence is in most cases a fight between the legitimate wife and the rival, and these fights are not seldom sanguinary. The one even tries to kill the other which, of course, she very seldom succeeds in doing. Such fights are continued for several hours, often for a whole night, during which the two enraged women beat each other with the hands, scratch each other with the nails, or wound each other with big cactus thorns which they have tied at the wrists.

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2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI12
Choroti SK6

relatives of the departed cannot live safely in it. This is the reason why in the Gran Chaco a traveller so often encounters remains of Indian villages which have evidently been burnt and abandoned by their inhabitants. The radical destruction of the whole village is always resorted to when several deaths have taken place at short intervals. The relatives of the deceased, when they abandon their own village, generally go and live with their relatives and friends in a neighbouring village, where they stay for some time, or until they decide to found a new settlement in some other part of the country. Custom requires that when the mourners arrive at the other village, they shall be received with wailing.

The Tobas, although they always burn the house where a death has taken place, do not as a rule deem it necessary to destroy the whole village. Similarly the relatives of the deceased generally remain there, building themselves a new dwelling; in other cases they leave the place for some time. The other inhabitants of the village, on the other hand, make no notable change in their mode of life, since they are not to the same extent exposed to danger from the death-spirit as the nearest relations.

Weeping and wailing plays an important part among the mourning ceremonies of the Indians, although it is always limited to the women and the children. The fact that wailing is ceremonial clearly appears from the circumstances under which it takes place. Although it is beyond doubt that the Indians are capable of real feelings of sorrow at the death of a near relation, yet their intense fear of death — including the fear of the dead body — is apparent throughout their mourning customs. The object of the wailing seems to be partly to propitiate the spirit of the departed relative by showing him how deeply the survivors grieve at his death, partly to frighten away the death-demon by the noise. The latter point of view is probably the most important. Wailing is continued for several months after the death. The length of the wailing period varies according to the social importance of the deceased. A great chief is mourned in all tribes for longer than an ordinary member of the community, in some cases up to a whole year. As to the manner of wailing there is a marked distinction between the Tobas and the Mataco on the one hand, and the Choroti on the other. The wailing of the Toba women is like a greatly exaggerated loud crying and sobbing which is seemingly the expression of a desperate sorrow. The wailing of the Choroti women is calmer and more like the weeping of a child. Every lamentation consists of a series of sounds produced in a high falsetto voice and

2: Karsten E-5 (1911-1913)1932 S17 Mataco

Choroti SK6

necessity of fishing also at that time compels them to stay near the river. 614
But as soon as the rainy season sets in and the algaroba, tusca, and other 361
fruits begin to ripen, the Indians take up their abode in the forest close by some small lagoon or a rare water-hole several leagues from the river, spending most of their »summer» time in drinking algaroba beer, feasting, and dancing. The Indians of the Guachalla region form the main bulk of the Choroti tribe and number about a thousand individuals. Their [648]
immediate neighbours in the south are the Ashluslay, to whom the Choroti are closely related in their culture. There is much communication between the two tribes and intermarriage is frequent. Thus the chief of the Choroti, the old Ātamo, was on his father's side of Ashluslay descent, but since [611]
mother-right prevails among the Chaco Indians, he had become a member of the Choroti tribe.

There seems to be a certain antagonism between the different Choroti 619
tribes, in consequence of which they have very little intercourse with one 184
another. I particularly noticed such an antagonism between those Choroti who live on the river and those living in the interior. It would have been impossible for me to get a guide among the people of the chief Toula to accompany me to Anempä's tribe. Since to these Indians, who in general live to a great extent by fishing, the possession of the river is of great importance, I suppose it is originally due to this enmity that some Choroti Indians have settled in the inhospitable regions in the interior where they are found to-day. These latter even speak a somewhat differ- [197]
ent dialect of the Choroti language. Thus, one of the commonest words in the language, the word for 'house', is in the dialect of the river Indians *uk*, in the dialect of the inland Indians again *sáuo*.

The Choroti living on the river call the Choroti tribe inhabiting the interior of the Chaco *Asówa*.

The total number of the Choroti I estimate at about 2,000 or a [161]
little more.[1]) The surrounding tribes are much larger. Of these I have 648
already mentioned the southern neighbours of the Choroti, the Ashluslay, whom the Choroti call *Ahle*. Their neighbours in the north are the Tobas, whom they call *Johlōki*, and another Chaco tribe, the Tapiete, whom they call *Ohuénik*. Their neighbours in the west again are the Mataco, whom the Choroti call *Hotenúk*. They have dealings with all these tribes, although at times they have been at war with them, or at

[1]) Consequently, when Nordenskiöld estimates the Choroti at 4,000 individuals, this is a great exaggeration.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

C 562 C [162] C [847] C 562 462 591 583 M 562 584

are due — at least in part — to geographical causes. As to the Choroti, it is to be noticed that among them the women in general have great social importance, to such an extent in fact, that we may speak of a real gynaecocracy. This is in the first place due to the numerical disproportion between the sexes which, at least at present, exists in this tribe. The causes of this phenomenon are difficult to assign; there is for instance, no general custom of killing new-born female children which would account for it. Infanticide is indeed practised in the case of monstrous children and twins, but it has reference to male children as well as to female. Female children are appreciated perhaps more than male children. for the very reason that women are so few in the Choroti society. Whatever the real cause of the numerical paucity of the women, it is this fact which explains their social influence. Besides this, we have to take into consideration the strict division of labour between the sexes existing among the Indians. For instance, sowing and planting, the carrying of fuel. the gathering of wild fruits, the brewing of intoxicating drinks, and a good deal of other home industries are wholly or chiefly incumbent on the women. This to the Indians means that no man *can* successfully do work which custom prescribes shall be done by a woman. A consequence of this is that particular importance is ascribed to female work as such and that women in general are held in great esteem. From this point of view we must also explain the custom that a man who marries must go and live with his wife's family. It is mainly due to the reluctance of her parents to separate from her on account of the work she performs. Among the Choroti no compensation is given for a bride, because no bargaining of any kind whatever takes place between the members of the tribes. Instead of that, custom prescribes that the young husband shall render services to her parents, which is only possible if he stays with the family of his spouse for a longer or shorter time. In this way matrilocal marriage in the Choroti and other Chaco tribes seems to me to have originated, although the Choroti at any rate are not now aware of these services being really obligatory and a form of compensation for the wife. Marriage among them appears now as a wholly private affair based upon the voluntary agreement of both parties. But where a matrilocal marriage has developed. the children are naturally looked upon as belonging in the first place to the mother and to her tribe or clan, whereas the husband's importance as a family father is only secondary.

The same kind of »mother-right» and gynaecocracy also prevails, or prevailed formerly. among the *Mataco* Indians who. for instance, allow

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

M 753

by another name: sometimes it is called *nihléle*, in other cases again *pini*, words which have their equivalents in the Mataco and the Toba languages in the terms *aláh* and *kaipák* respectively. In regard to all these words we have to remember that they belong to the particular mystical terminology of the sorcerers and cannot exactly be translated into any civilized language. The Indian »arrow» or »splinter» is half an inanimate object, half a live being, half material, half spiritual, half natural, half supernatural. Whatever it is, it is to the primitive mind the most real thing possible, because its existence is manifested by its dreadful effects.

C 754

The Choroti Indian, who works evil against his fellow-tribesmen by throwing spells against them, is called a wizard (*ayïeu*). The expression for the nefarious operation itself is in the Choroti language *páhu ahuli sikiätsä*, (»to work evil against a fellow-man by means of witchcraft»). For the purpose of bewitching another Indian the sorcerer tries if possible to get hold of something that has been in close contact with the victim's body, for instance a single hair, a little saliva when he has spat on the ground, something of his excrement, a piece of his clothes, etc., and uses these things as vehicles for his curses. But even a medicine-man or curer, as we have seen, is called *ayïeu*, and there is thus no essential difference between an Indian practising black or nefarious magic and one practising white magic. A man in possession of a guardian spirit may use his art either for the benefit of his fellow-tribesmen or to harm them, according as to whether he regards them as his friends or as his foes.

C [164] 753

Besides rheumatism, affections of the throat and the chest, arising from chill, are very common among the Chaco Indians during the dry season. The Indian explanation invariably is that an evil spirit has entered into that particular part of the body where the pain is felt. If a Choroti Indian suffers from head-ache and I ask him what is the matter with him, he will answer that he has a *möhsek* in the head; if he suffers from a catarrh, he will point to his throat or his chest and say that a *möhsek* has taken its seat in either of these parts of the body. In a village I once met an old woman who had her right fore-arm paralyzed, evidently in consequence of a fit of apoplexy. She explained to me that the arm had been seized by an evil *möhsek*, and had tied a dirty woollen band round the arm at the wrist so as to prevent the evil spirit from penetrating further into the body.

C 761

If the demon is allowed to complete his work of destruction in the

114 By his living like an Indian among Indians, Nordenskiöld has in an unparalleled way succeeded in enriching ethnographical science, and his research achievement is one of the most noteworthy in the history of modern South American exploration.

101 The Choroti Indians are also called Chorote, Choloti, Tsoloti, Soloti and Solote. The final »s» added to these tribal names comes from the Spanish plural form, and has therefore in later works rightly been left out. The name they call themselves by is »yófuaha», or »yóshuaha», which probably means »pigeon people». If so, the pigeon would be the totem animal of the Choroti.

After the publishing of the valuable research, made by Hunt, of the Choroti language, it has become necessary to class this tribe with the [F 7] Mataco group, although the material culture of the Choroti in many respects shows an equally close kinship with the civilization of certain Guaycurú and Mascoi tribes, such as the Toba and the Lengua. That the Choroti have had their abode in the Chaco ever since the Inca period is highly [174] probable, because, as already mentioned, their material culture in a very obvious degree points to a strong influence from the ancient mountain civilization to the west.

101 131 The section of the Choroti tribe among whom I pursued my study, was at the time of our expedition located in the neighbourhood of Caiza (see map). Some of the Choroti I met in this district had, however, their chief place of resort on the Pilcomayo, and thither they intended to return after a visit to the sugar plantations in northern Argentina. As I have [116] been informed, my red friends from the Caiza region at some later time did something or other to the annoyance of the settlers of the district, whereupon they moved further into the Chaco, and have since that time probably never again come into contact with whites. According to Nordenskiöld, other Choroti have, however, immigrated into the country about Caiza. The main part of the Choroti tribe inhabits the region immediately to the east of the Pilcomayo, and roughly between 21° 45' and 22° 45' of south latitude.

Our main camp, Tatarenda, was situate a few leagues south-west of Caiza, and the Choroti of whom I made a study were located one league south-west of the camp.

000 Of the Choroti among whom I carried out my investigations, the men

[text continues on p. 31]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6
Toba 5112

C 241

tive fashion, and, according to Nordenskiöld and Karsten, such agriculture as the Choroti engage in, is still on a very inconsiderable scale. Nowadays, however, these Indians cultivate — although not to any great extent — the following plants, viz.: pumpkins, cucumbers, water melons, maize, beans, manioc, sweet potatoes, tobacco and cotton.[1] Their only agricultural implements consist of digging-sticks of hard, heavy wood, and a kind of paddle-like, wooden spades. A typical digging-stick is reproduced in fig. 27.

It is probable that the Choroti originally had no other domestic animals than dogs, and the only tame animals I personally saw among this tribe were dogs and fowls. Those of the Choroti Indians who are living in the neighbourhood of the Pilcomayo possess, beside the animals mentioned, also sheep, goats, cattle, horses and cats. Sheep-rearing has now come to be of great importance to the Indians, who use the wool as material for mantles, fillets, etc.

C T [227]
C 231

Fig. 131. Cord on which fish are strung by means of a large needle of hard, heavy wood. This kind of carrying-gear is very common among the Choroti. The specimen here reproduced originates, however, from the Toba (neighbours of the Choroti). Gran Chaco. Bolivia. E:s. Riksm. 03. 3. 766.

C 361 166

As mentioned, the Choroti are a nomadic people. Their changes of location may be due to various circumstances. When pasture is exhausted in one place, they must look about for another; they move on to more profitable fishing-waters, or wander into regions that are rich in game and wild, edible plants. But there may also be other, and quite different, reasons for the Choroti's leaving their old abodes. In epidemics, when deaths are plentiful, it happens that the Choroti abandon their villages, and this they may also occasionally do if they are apprehensive of visits from whites (see pp. 47 and 48). In a first-rate monograph, Dr. Ragnar Numelin has exhaustively analyzed the causes governing the nomadic instinct in primitive peoples. As re-

C [731]

[1] Nordenskiöld (11), p. 29.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

361 gards the Choroti, he, on Karsten's authority, mentions the interesting
●166 fact that these Indians sometimes are compelled to make a change of dwelling-site only on account of the appearance of excessive swarms of noxious insects (principally locusts).[1]

484 It is only in later times that the Choroti to any greater extent have
464 come in to work on white men's sugar plantations. These plantations are mostly situated in Argentine territory, and therefore the Indians often have to make journeys of several weeks, in going to, or returning from, their place of work. Such Indians as go to the plantations only work for a few months for the whites, and then return to their own locations, there to spend the rest of the year in the wilds of the Chaco. Whilst at the plantations, they live in Indian villages they build for themselves, and in many ways carry on their primitive life.

166 I will also mention two other reasons for migration; now, however, only seldom obtaining among the Choroti, viz., fear of other Indian tribes and of reprisals for misdeeds committed against the whites. Concerning the latter cause for migration, I have already mentioned that a part of the Choroti tribe disappeared into the interior of the Chaco, after having in some way transgressed against white people who had settled in their country.

439 The Choroti Indians also engage in trading, and their chief article of barter is dried fish. In the Pilcomayo they are able to catch more fish than are required for their own consumption, and they therefore dry the surplus and take it to other parts, inhabited by Chiriguano and Chané, where fish is less plentiful. These latter Indians buy the fish by giving in exchange maize, red colouring-stuff (for face-painting) and other articles. Nowadays the Choroti also obtain iron, clothing, and other wares, by trading with the whites at the sugar plantations.

The snail-shell spangles that have been described in the foregoing are an important article of trade in the Chaco. The Choroti, according to their own stating, obtain spangles — separate, as well as strung into ready-made necklaces — from tribes living in the eastern Chaco. On Rio Parapiti Nordenskiöld has seen spangles of this kind among the Tapiete Indians, who told him they had got them by barter from the Ashluslay, and the latter that they, in their turn, had obtained them

[1] Nuttelin (1), p. 38.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

291 occurrence. I was, however, told that, in olden days they were in general use among the men. Fringed leather belts of the same kind as the one [171] here shown, are still common among the Lengua in the eastern Chaco.[1] Belts and girdles are fastened round the waist by means of a thin leather strap, passed through, and tied to, two holes at one end of the belt. The two free ends of the strap are threaded through two corresponding holes in the other end of the belt (see fig. 31); are tightened up as required, and tied. In the same way the Choroti fasten their fringe-less leather belts (fig. 171), which are usually made of white oxhide, and serve to secure mantles and skirts round the waist (see fig. 30: the man farthest to the left). The Choroti also wear broad, fringe-less belts of oxhide as a protection for the stomach from arrow shots.[2]

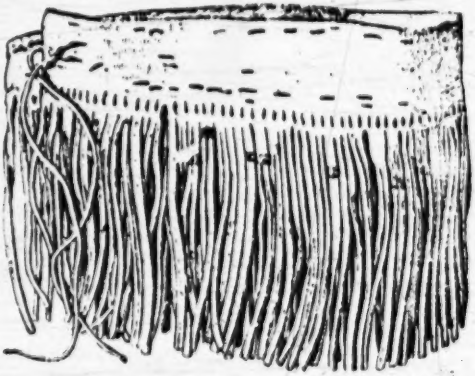


Fig. 31. Fringed leather belt. Mountings of tinplate decorating some of the fringes. Choroti. Gran Chaco. Bolivia. 4/5. Riksm. 03. 3. 8.

Very common garments are large woollen mantles, which the men either wrap round the waist (figs. 17, 30, the two men on either flank), or drape over the shoulders (fig. [231] 32). The Choroti women weave these mantles of the wool from the 286 flocks of sheep that the tribe owns in the interior of the Chaco. The 291 mantles are usually in two colours, and woven with groups of stripes. I have reproduced, in fig. 33, a corner of a Choroti man's mantle, the size of the mantle being 204 by 183 cm. The fabric, so-called rep, consists of two-thread, tightly spun yarn of a greyish white (the natural colour of the wool) and reddish brown; the warp is rounded, so that the weaving is selvedged all round. The woof is red. The ground colour of the mantle is brownish red, and there are six groups of greyish white stripes running with the length of the mantle. Each group of stripes consists of one broad, greyish white stripe, with two thinner stripes of

[1] Grubb (1).

[2] Cf. Nordenskiöld (13), plate 13.

286 Among the Choroti, I have only seen a very few individuals wearing
291 the poncho, and the only specimen of this garment I succeeded in obtaining belonged to a half-grown youth. This poncho (fig. 35) consists of a woollen fabric, 160 cm long and 61 cm broad, in the middle of which there is a slit, 26.5 cm in length. The weaving consists of two-threaded, tightly spun yarn of greyish white (the natural colour of the wool) and red (now faded). Its ornamental design is formed by three broad, decorated strips, woven on double warp, so that on one side the pattern shows greyish white on red ground, and on the other side red, on greyish white ground. The fabric between these strips is rep, with the woof of greyish white yarn. Whether this poncho is of Choroti weaving, one cannot be certain. Possibly it has been obtained by Choroti from their Ashluslay neighbours, seeing that similar garments are not uncommon among the latter.[1]

[531]

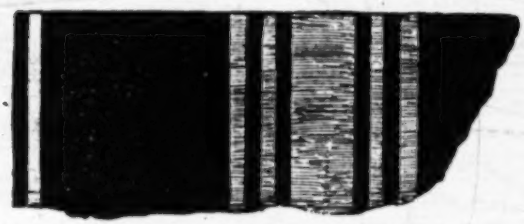


Fig. 33. Corner of man's mantle which is 204 cm long and 185 cm wide, of brownish-red wool, woven with groups of greyish yellow stripes. Gran Chaco. Bolivia. 1/4. Riksm. 03. 3. 1.

[531 171 422]

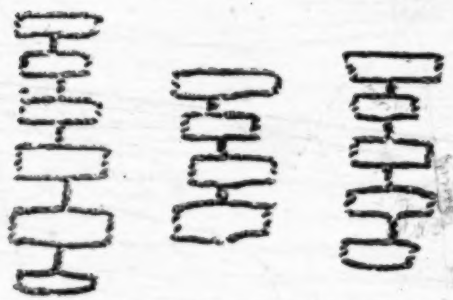


Fig. 34. Ornaments (probably property marks), placed in the middle of the mantle, a detail of which is seen in fig. 33. 1/2.

292 714 In the huts of the Choroti I frequently came across a kind of thick shirts, knitted from tightly spun caraguatá-fibre threads (fig. 36), but I never saw them in use. In reply to my questions as to the reason for this, I was told that these garments are chiefly worn in fighting, when they are used as a protection against [171] arrows. Caraguatá shirts are also used by the Ashluslay and the Mataco,[2] but in the literature on those Indians I have found no reference as to their being used as a protection against arrows. The Chiriguano, however,

[1] Nordenskiöld (11), pp. 111 and 112.
[2] Nordenskiöld (11), p. 107.

translated »big ears» — an appellation subsequently transferred to all such tribes within, or in the neighbourhood of, the Inca kingdom, among whom the wearing of ear-lobe discs was customary.

In our days, the practice of wearing ear-lobe discs is met with among a number of tribes distributed over the whole of that part of South America which lies to the north of the tropic of Capricorn.[1] On the Chaco, ear-lobe discs are extensively worn by the Choroti, Lengua[2] and Ashluslay, and are also found among some of the Mataco and Toba Indians.[3] Also in North America the custom of wearing ear-lobe discs, or blocks, appears to be very ancient.[4] The wearing of this kind of ear discs is, however, not limited to America, but is also found, among other places, in Central Africa.[5]

Fig. 52. Brush-like ornament of false hair, for wearing pushed in under the frontlet. Choroti, Gran Chaco, Bolivia. [6] a. Riksm. 03. 3. 65.

Among the Choroti, all the men and youths have their ear-lobes pierced, and in the holes they wear discs (see for instance figs. 17, 30, 39, 53). These discs were almost always used for everyday wear, and invariably on state occasions. It very seldom happened that I saw a Choroti man without his ear-discs. Latterly, the practice of wearing ear-lobe discs has, in the same way as other old customs once prevalent among the Choroti, become less common, and nowadays it seems that the Choroti, for everyday use at least, often appear without their discs. The piercing of the ear-lobes is performed with a bone awl, or cactus spine, already during boyhood, but I did not see any boys under puberty age wearing discs. Neither is there anything in the literature indicating that Choroti boys put on ear discs before that age.[6]

But, on the other hand, immediately on having had their ear-lobes pierced, the Choroti children take to wearing bits of grass, or very slender

[1] Nordenskiöld (11), map 18.
[2] Koch (1), p. 318, and Hawtrey (1), p. 283.
[3] Nordenskiöld (11), p. 122.
[4] See for instance Moore (2), p. 382.
[5] von Rosen (4), plate 7, fig. A, and von Rosen (7), p. 124.
[6] When it has been stated that the wearing of ear-lobe discs has nothing to do with pubescence [Nordenskiöld (12), p. 68], this is correct only in so far as the ear discs of the Choroti, like the tembeta of the Chiriguano, may, perhaps, first and foremost be attributed with a magical significance, and that their character of being symbols of puberty is only a secondary one. Cf. Karsten (4), p. 155.

1: Rosen E-5 (1901-1902) 1924 - SK6 Choroti SK6

of the hole in the ear-lobe was probably an important matter, a point noticed also by Karsten, who writes on this subject: »Of all marks of honour which they received at this initiation, *the holes* in the ear-lobes were the most important. The Inca himself pierced the ears of the young princes with big golden pins, which afterwards were left in the wounds *in order to make the holes larger.*»[1]

For reasons which here follow, I can, however, quite well imagine that exceptions might be made from the rule that ear discs may not be worn by women. Karsten states his observation that women, as a rule, take no part in religious ceremonies, incantations or dances, but adds: »There are exceptions to this rule, and just as elderly women, who have been properly initiated, may perform certain religious ceremonies of their own, so may they also occasionally take an active part in certain religious dances.»[2]

Bearing in mind the fact that ornaments of magical character have their specific uses at dances and other religious ceremonies, and also that ear blocks, as we have seen, are looked upon by the Choroti Indians as means of protection against evil spirits, I do not find it improbable that *elderly women, who have been initiated in magic ritual, on certain occasions may wish to strengthen their power to resist evil spirits by enlarging, as do the men, the holes in their ear lobes by putting in blocks, or discs.*[3]

Among another Chaco tribe, the Toba Takshik, Dr Lehmann-Nitsche has observed that a certain distinctive attribute, which as a rule is exclusively meant for the one sex, may, in rare and exceptional cases, be assumed by the other. Lehmann-Nitsche tells of a man who had been given the tattooing especially distinguishing women, but points out that this must have been an extremely rare case, seeing that it greatly astonished even the interpreter, and suggests the possibility of the man not being considered an »homme normal».[4] It is noteworthy that the tattooing in question, described and reproduced by Lehmann-Nitsche, is practically identical with a tattooing design that adorned a Choroti *man* (see fig. 66).

[1] Karsten (4), p. 136. Italics by von Rosen.

[2] Karsten (1), p. 2.

[3] Fig. 30 in »Indianlif» (Nordenskiöld (12) shows a redoubtable old Choroti woman, who had executed the tattooing Nordenskiöld had done on himself. This old woman's ear-lobes are enormously distended.

[4] Lehmann-Nitsche (2), pp. 15 and 16.

171 Among the Ashluslay, who are neighbours of the Choroti, *only the men wear ear-lobe discs*, which probably is also the case among the Toba.[1]

As I have pointed out in the foregoing, in their culture the Lengua are very closely related to the Choroti, and therefore it would be of especial interest to obtain exact knowledge as to how the practice of wearing ear-lobe discs is applied among the first-mentioned tribe. In the literature on the Lengua we find a definite statement by the distinguished explorer, Koch-Grünberg, to the effect that among the Lengua it is *exclusively* the men who make use of ear discs,[2] whilst the equally prominent Chaco expert, Grubb, says that it is *chiefly* the men who wear these ornaments.[3] Grubb has published the picture of a woman who has distended holes in her ears, but is *without discs*.[4]

From the statements made by Koch-Grünberg and Grubb, I think it probable that among the Lengua, as among the Choroti, it is the rule that ear discs are worn exclusively by the men, but that exceptions may occur. That such exceptions must be of extreme rarity is as obvious as could be desired, from the fact that Koch-Grünberg never saw a single Lengua woman wearing ear discs.

301 322 Among the Choroti, the ear discs are made of wood, cane, gourd shell or palm leaves. In the wooden discs, the front face is flat and often metal-mounted (figs. 53 and 54), or has ornament burned in (fig. 55); the rear face is usually convex and, as a rule, provided with a hole bored or burned into it, sometimes forming a perforation right through the disc. Occasionally the cylindrical surface of the discs is decorated with ornament burned in.

301 The long necklaces of snail-shell spangles, like most other ornaments among the Choroti, are worn exclusively by men. These necklaces usually have a length of several metres, and rank as highly valued possessions; it is exceedingly difficult to obtain such a treasure from a Choroti by barter. The most elegant of the men often wear several necklaces of this

[1] Nordenskiöld (13), p. 68.

[2] »Diese Pflöcke sind *ausschliesslich eine Zierde des männlichen Geschlechts; die Frauen tragen sie nie*. Das erste Anlegen des Pflockes ist eine Art religiöser Feier, bei der sie nicht gern einen Fremden dulden.» Koch (1), p. 218. Italics by von Rosen.

[3] »Wooden ear-discs are worn as ornaments, chiefly by the men.» Grubb (1), p. 72. Hawtrey, who has also written about the Lengua, does not say whether only the men wear ear discs, but he has described these objects in connexion with other objects of a more-or less magic character, which *as a rule* are worn by men. Hawtrey (1), p. 283.

[4] Grubb (1), the top picture on the plate behind page 72.

[text continues on p. 69]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

out, the tattooing reproduced in the last-mentioned diagram is almost 304
identical with the face-tattooing on a Takshik man reproduced by Lehmann-Nitsche.[1]

Only grown women are plentifully tattooed, and a tattooing like the one reproduced in fig. 73 is *never found on any woman under marriageable age*. Just as with us the girls are not at once given long skirts to wear, but only by degrees, so the girls of the Choroti with the passing of the years are given additional tattooing, until, having grown into mature women, their face-ornamentation is complete.

With many Chaco tribes, tattooing is probably as a rule a puberty [171]
sign of a magic character, especially set apart for the women. Among the Ashluslay, only the women are tattooed,[2] and, according to Karsten, the women of the Ashluslay on the lower reaches of the Pilcomayo are tattooed as they enter upon puberty.[3] Among the Toba, only the women are as a rule tattooed.[4]

The tattooing is generally performed with cactus spines (fig. 77), but exceedingly sharp-pointed bone awls (figs. 81 and 88, c) are also used. The latter are often wound with woollen yarn, leaving only a few millimetres from the point, so as not to penetrate unnecessarily deep into the skin (figs. 185 and 186). These wool-wound bone awls are, however, primarily intended for being used in a peculiar kind of blood-letting, to which I shall again refer in connexion with the magic practices of the Choroti. The most practical way in which to perform tattooing is undoubtedly by using a small bunch of Cactus spines, for then several punctures result from each stab. On the only occasion when I saw tattooing being performed, the puncturing was made with bone awls, it is true, but that may possibly have been owing to there being no cactus spines handy. Other investigators, who have spent longer time than myself among the Choroti, only mention cactus spines as puncturing instruments in tattooing.

Tattooing is performed in the following way: With saliva strongly mixed with soot, the tattooing artist (often an elderly woman), by means of a small stick outlines the desired pattern on the face of the person who is to be tattooed, whereupon the tattooer stabs at the sketched

[1] Lehmann-Nitsche (3), p. 16.

[2] According to Nordenskiöld, the Ashluslay girls receive their first tattoo marks at the age of about 5 to 7 years. Nordenskiöld (13), p. 68.

[3] Karsten (4), p. 24. Cfr. also what Karsten says about tattooing, pp. 220—222.

[4] Lehmann-Nitsche (3), p. 16.

A [should be lower case. - ANAlyst]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Fig. 90. Riksm. 03. 3. 245.

Fig. 91. Riksm. 03. 3. 256.

Bows, Choroti, Gran Chaco, Bolivia. 1/4. In shooting, the bows are held in the position shown in the figures, i. e., with the part of the stave downwards, on which the string is wound.

Fig. 92. Lower string hold, and string mouse, of the bow, fig. 90.

a. b.

Fig. 93. Upper and lower string-holds and string mouses of the bow, fig. 91.

Among the Choroti, as among their neighbouring tribes with the exception of the Chiriguano, the bow staves are sometimes made with a bend at the ends towards the string, these bends having been produced *before* the stringing of the bow (see fig. 91). How the bends are effected among the Choroti I cannot say, but it is probable that they, like the Lengua, for this purpose use fire.[1] According to Grubb, the Lengua shape the staves also with axe or knife so the stave ends assume the bent shape required. This can, of course, only be done by making the ends strongly tapering, as then they are more easily bent. The direct carving or cutting out of a bow stave with bent ends from a piece of wood is certainly possible, but to my thinking the stave would break at the very first attempt at stringing the bow, because in such a case the grain of the wood would not be following the bend of the stave.

By giving the ends of a bow stave an inward bend in the way done in certain Chaco bows, the greater part of the stave — even when stringed — is free from any strain, except when the string is being

A. B. C.

03. 3. 250. 03. 3. 256. 03. 3. 257.

Fig. 94. Transverse sections at middle of the Choroti bow staves. Gran Chaco, Bolivia. 1/1. Riksm.

[1] Grubb (1), pp. 76 and 77.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

drawn back for giving speed to the arrow. Of the circumstances which require a bow-stave construction of this kind, I have given a full account in my description of the bows of the Rangweolo swamp dwellers,[1] so that here I will only mention that such a construction is the right one only for bows that are never altogether unstrung. 411

Among the Choroti, as among the Mataco,[2] the curved end type of bow is considerably more rare, and less developed, than among the Toba, which latter tribe, according to my opinion, has preserved the Chaco bow in its purest and most highly developed type (see figs. 272–274). Probably the Choroti formerly had bows of the same type as the Toba, but in later times the bow type of the first mentioned tribe is likely to have been influenced by intercourse with the Chiriguano. [171]

Chaco bows have not, *as a rule*, ends that have been pared down for giving a hold to the string (Cfr. figs. 92 and 93 with fig. 205); some Choroti bows, however, have been given this kind of string hold, as may be seen from the table below. These pared down bow ends are undoubtedly an imitation of the Chiriguano stringhold. On the bow stave, immediately inside the loop of the string, the Choroti occasionally lay on a winding of caraguatá or woollen yarn, 0.5 to 1 cm wide (fig. 93), which prevents the string loops from slipping down along the bow stave when the strain is very hard. In a properly made bow, no such windings are necessary, and were certainly not used in the old days, otherwise than exceptionally. Nowadays these windings are often seen: of the eleven Choroti bows studied by me, no less than four are wound inside the string holds.

As a rule, the bow staves have been polished very smooth. Their transverse sections at the middle are shaped as seen in fig. 94. Between the section types A, B and C, there are intermediate forms, which, in my table of Choroti bows, I have named AB and BC.[3] Such transverse sections as are found in the bows of the Choroti are also met with in bows found in the Andean mountain regions, and in the report I have published of my archæological researches in Quebrada del Toro and on the Puna de Jujuy, I have embodied a description of some bows and bow fragments, found in ancient graves, which have the same kind of section and string-hold as the typical Chaco bows. Several of the Andean bows are, however,

[1] von Rosen (4), pp. 176–184.
[2] Cf. Krickeberg (1), fig. 33 a.
[3] For transverse sections of other Chaco peoples' bows, see Schmidt (1), p. 1037 et seq.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

These casings are not sewn together, but consist of the seamless skin of the tail or leg of some animal. At first I took it as a matter of course that these casings had been put on solely for the purpose of strengthening the bow at some point where it looked like breaking. In order to make certain, I cut loose a casing of this kind, which was on the bow numbered 03. 3. 253, but I could not discover the least crack, knot, or other defect pointing to any necessity for reinforcing the bow at that point. But, between the casing and the stave, I did find some flattened cakes of excrement from some herbivorous animal. Whether these excrements had *purposely* been placed inside the casing, is of course impossible to say, but if they were put there on purpose, then they undoubtedly possessed some magical significance. In such case the idea must have been that they would bring good luck in the hunting of the species of game whose excrement had been placed inside the casing (see p. 181). As among the Indians there is a very wide-spread notion that whoever possesses the skin of some animal also possesses a certain mastery over the spirit of that animal,[1] it is not impossible that the skin casing itself is of a magic character. Professor Emil Holmgren, who, at my request, kindly carried out a microscopical examination of the excrement flakes as well as of the piece of skin, considers that the character of the latter points to its having been a part of the tail of an animal of the goat, sheep, or *cat* tribe, and that the colour and grouping of the hairs are indicative of the *last-mentioned* category.[2] That parts of animals' bodies are used by the Chaco Indians as hunting amulets, is, among other things, evident from a statement by Nordenskiöld upon the subject of hunting among the Ashluslay, who are neighbours of the Choroti: »In hunting, the Ashluslay make use of various amulets. If, in the always indispensable caraguatá bag, one carries the head of a tortoise, then one is able to stalk close up to the deer, without putting them to flight. When hunting ostriches, it is a good thing to bring along pieces of skin taken from the breast of ostriches which one has killed.»[3] As to the other two bows, I have refrained from cutting off the skin casings, and therefore cannot say whether the latter conceal any cracks or not. On the staves of the bows Nos. 03. 3. 252 there are, however, to be seen, close to the casing, several deep scorings, running

[1] Karsten (4), p. 90.
[2] Opinion dated August 24th, 1921. Rockefeller collection of Manuscripts, Volume 1921, »II».
[3] Nordenskiöld (13), p. 49.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Fig. 110. War club, of hard, heavy wood [illegible] mataco. Choroti. Gran Chaco. Bolivia. 1/6 Riksm. 10. 3. 92.

As war weapons the Choroti use, beside bows and arrows, short, round-handled clubs of some very hard and heavy wood, usually palo mataco. The head and handle of the clubs is always carved in one piece (fig. 110). With these seemingly not very formidable weapons, the Indians are able — on account of the great hardness, heaviness and strength of the club material — to deal terrible blows, and they know how to use them with great skill.

In fighting their rivals, the Choroti women sometimes use knuckle-dusters of tapir hide or wood,[1] the latter being of a type identical with specimens found in ancient Indian graves in the mountain region to the west.[2] The Choroti use also bone awls as daggers. A bone awl especially suitable for a weapon is reproduced in fig. 111. It consists of the lower part of the leg-bone of a small deer; the foot serves for a handle, and the hoofs forms an excellent pommel. The weapon fits the hand very well when the thumb rests against the sole of the hoof.

For cutting up game, the Choroti use knives made of sharp-edged cane splinters. Knives and poniards, of cane, have been very extensively used in South America. Even among tribes possessing knives of stone or metal, to this day knives of cane are being used in certain ritual ceremonies. Thus Bolinder, for example, mentions that among the Ijca Indians of Northern Columbia, in childbirth the navel is cut with a cane splinter.[3]

The Choroti do not, however, possess only weapons of offence, but also weapons of defence. When on the subject on dress, I have described the mail shirts, made of closely woven, thick

Fig. 111. Awl, made out of a shank bone of a small deer. Bone awls are sometimes used as poniards. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 181.

[1] Nordenskiöld (11), p. 55 and 56; also (13), p. 81.
[2] von Rosen (1), pp. 203 and 204.
[3] Bolinder (1), pp. 240 and 243.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

415 of a river mussel (fig. 133). These mussel shell spoons are seldom as large as the specimen here reproduced, which has a length of 14 cm.

I have seen neither food dishes nor spoons, made of wood, among the Choroti, but nowadays, at least, such are used by them.[1]

285 415 Among the Choroti I saw only one single piece of basket work (fig. 134). It consists of a small basket of the same shape as a kind of pot, which is common in the Chaco (see cooking pot in fig. 192), and it is probably only a direct copy, made in sport, of a clay pot; otherwise, basketry is unknown to the Choroti, and it is therefore probable that the object in question has either found its way to these Indians from the Chiriguano, or that some Choroti, having seen basket-weaving in a Chiriguano village at some passing visit, subsequently has attempted to produce, some similar work himself. It should be noted that the weaving technique in the basket here reproduced is the same as the one used by the Chiriguano.

Fig. 133. Spoon, consisting of a mussel-shell. Choroti. Gran Chaco, Bolivia. 1/2. Riksm. 03. 3. 167.

[7]

286 415 The Choroti keep no inconsiderable part of their goods and chattels in large, nearly oval, knitted bags of caraguatá yarn (figs. 135 and 136). These bags are especially useful when the tribe is journeying or migrating. They are carried by the women in such a way that the tape or string within the ends of the bag is placed across the forehead, whilst the bag rests against the carrier's back. The carrying cord over the forehead keeps the bag from slipping down the back. For carrying water pitchers and other vessels of earthenware or calabash, the Choroti use carrying nets. On page 118 I have described the way in which these are used.

[285] [482]

Fig. 134. Basket, Choroti(?). Gran Chaco, Bolivia. 1/2. Riksm. 03. 3. 144.

For everyday use the men have a kind of

[1] Nordenskiöld (11), pp. 86—90.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

wood, music bows, drums, rattles made of calabash, and dancing rattles consisting of animal hoofs. Latterly the Choroti have also taken up the use of a kind of cow-horn trumpet with a mouthpiece of reed. 534

The reed flutes bear a great resemblance to the ancient Peruvian flutes, although the latter as a rule are of bone. Like most Choroti flutes, the one depicted in fig. 162 has a notch cut in the edge at the opening of the mouthpiece. This detail is also found on many ancient Peruvian flutes.[1] [171]

Mead writes of the latter that they consist of one-piece tubes of reed or bone, open at both ends, and that they belong to the kind of flutes that are called »end-blown». They are blown at the end where the notch has been cut, with the lower lip against the part of the edge which is diametrically opposite the notch. According to Mead, the notes are produced by the air current, in blowing, passing across the mouthpiece opening and striking the sharply cut, opposite, edge of the flute-mouth (i. e., at the notch); this sets up vibrations in the air column within the tube. It is well known that the note which is given off by a flute depends upon the length of the vibrating air column within the flute. For varying the length of the air column, the ancient Peruvian flutes are provided with holes, from three to seven in number. All attempts at discovering any system relating to the distances between these holes have failed. One is reduced to supposing that the flutemakers among the ancient Peruvians placed the holes in a more or less arbitrary way. The fact of the tones producible on flutes of this kind generally not forming any correct scale, is not to be wondered at when one considers the difficulties a modern maker of flutes has to overcome in order to produce a perfect flute.[2]

Open-ended bone flutes of the same kind as the ancient Peruvian ones, are known from, among other tribes, present-day Brazilian Indians dwelling on the banks of Rio Tiquié and Rio Caiarý-Uaupés. About these instruments Koch-Grünberg writes that: »at the upper edge of the mouthpiece a square or semicircular notch has been cut out. The flute is pressed against the lower lip, and one blows obliquely into its mouth. These flutes have three, or, more seldom, four, finger holes.»[3] [171]

[1] E. g., Engel (1), fig. 18, a, b, c, and Mead (1), the fig. on p. 14, and also plate V, figs. 1, 2, 3, 7, 8, 9, 12, 15, 21, 22, 23.
[2] Mead (1), p. 14 et seq.
[3] Koch-Grünberg (3), p. 303.

534

In previous works on the Indians of the Chaco, there is to my knowledge nothing said about the Choroti possessing whistles made of bone. These Indians do, however, use such whistles, which are made of bird bones (fig. 164). These whistles are open at both ends, so that two notes can be produced; if one closes the lower end of the whistle with the finger, one naturally obtains a note differing from the one given by the open whistle. In the bone whistles, the blowing-end is partly stopped up with wax.

Fig. 165. Disc-shaped, wooden whistle; on one side mounted with a piece of tin, the other side unmounted. On the figure, the dotted lines mark the boring. This object is meant to be worn as a breast ornament string round the neck. The carrying string consists of red, woollen yarn, and is decorated with a few snail-shell spangles. Choroti. Gran Chaco, Bolivia. 1/2. Riksm. 03. 3. 214.

Fig. 165 shows a remarkable type of whistle, which is very common in the Chaco. This whistle consists of an oval, flat piece of wood, bored through in the way seen from the figure. On one side it has a sheeting of tin, which originally had a serrated edge all round, like a cog-wheel. Most of the teeth are, however, worn away, but on the left half of the mounting the serrations are almost intact. The mounting is set on the wood by means of some waxy substance. The reverse side of the disc is without any mounting or other ornamentation. For carrying this whistle there is a plaited cord of red, woollen-yarn, which is decorated with a few snail-shell spangles. The object in question is evidently very old, as one of the holes which originally served for fastening the carrying cord has become useless through the cord having worn through the wood, which is of very great hardness, in the way seen from the figure. A new hole for the cord has therefore had to be bored. Oval whistles of this kind, ornamented on one side, are worn as breast ornaments by most Choroti, and are also found among the Ashluslay, Chané, Chiriguano, Churápa, Lengua, Mataco, Tapiete, Toba and Yuracáre. [171 301]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

764 decisive weight, for, as I have pointed out in the foregoing, one needs to use the utmost caution in accepting information which has been obtained through an interpreter. But as an eminently striking corroboration of the 764 interpreter's statement there is, I may point out however, the fact that 171 the Mataco Indians, who belong to the same ethnical group as the Choroti, often put down pots of food and drink in graves, and that the Mataco believe that the dead actually partake of the offering. The fact of this being so was easy enough of verification among the Mataco Indians who, already at the time of our journey, had to a certain extent acquired the Spanish tongue. At Rio Seco Nordenskiöld excavated a Mataco grave, and in this he found a clay pot. About this he writes as follows: »When I asked them what the pot was for, they told that it had contained water which the occupant of the grave had drunk on his journey; a reply showing that they have a firm belief in a life beyond the grave.»[1] Bearing in mind how closely the customs and usages of the Mataco upon the whole correspond with those of the Choroti, I am of opinion that, from consistent statements of the Choroti interpreter and Mataco Indians, we have very strong reasons for supposing the food- and drink vessels, the tobacco pipes, etc., that have been found in Choroti graves, were intended for the use of the dead.

[1] Nordenskiöld's notes, Riksmuseum Inventory, 03. 5.

[pp. 187-268 not processed]

2: Nordenskiöld SK6 Choroti SK6

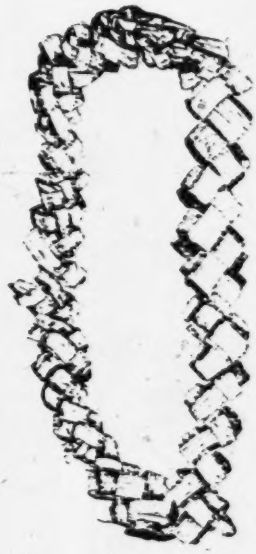
● 171

[For distributional evidence concerning the Choroti, see Category 116, entire book. --Analyst]

1: Métraux--324 E-5 (1929) 1930 SF10 Chiriguano SF10
Guiana SR1
Choroti SK6
Ashluslay SK5
G 285 353 /462 cont /

serve as amulets, and, in any case, as ornaments. (Roth, pp. 497-499, Figs. 241-244 and p. 270; Koch-Grünberg, 2, Vol. II, p. 244.) In the same way the Chiriguano Indians decorate their huts with these figures, which they take care to have blessed. Exactly as in Europe they keep palm branches as lucky charms. Rosen (1, p. 61, Fig. 51) publishes a similar straw amusement which he found among the Choroti and which was pointed out to him as an ornament worn on the forehead. This explorer suspects the exactitude of this information and supposes that a ritual object is concerned. In reality, it is only a "flower," which the Choroti described by Rosen probably received or bought in some Chiriguano mission. It is enough to compare the figure of it that he gives us and ours in order to be convinced of this.

C 285 353 778 789
Ci 114 285 301



A 285 301

Fig 119. Wreath of plaited palm leaves (amusement or ornament?). Ashluslay. Prov.: Estero Patiño. (1/4 nat. size.)

A C Ci 285 171

Figures made of palm leaves are not, however, unknown to the other Indians of the Chaco. The Ashluslay sold me a diadem braided according to this principle (Fig. 119) and Rosen (1 Fig 44, p. 48) reproduces an identical head-ornament which he bought from a Choroti tribe.

Choroti SK6
Mataco SI7
Güisnais

Ci 301 302 171 /321 cont./ Doubtless through being very close to the Toba, they pierce their ear lobes, in which they put pieces of wood, and they also stain their faces.

Ci 648 [464] In the expeditions to the Paraguay they have never shown themselves to be hostile to the whites and soldiers; rather they have lent important services and it was they who saved the life of Señor Touvar and his companions when they became separated from the expedition. Therefore the reduction of these Indians to civilized life would be very profitable.

Güisnáis

M 131 101 These Indians occupy the western bank of the Pilcomayo facing the Choroti Indians and southwest of the region occupied by the Mataco. The geographic degree of their territory, with a very slight difference, is the same as that of the Choroti, since they are separated from the latter only by the river bed.

M 101 181 241 231 197 They are a division of the Mataco; they speak the latter's language with very little difference; their customs are nearly identical and their number quite small. They are of a peaceful nature like the Choroti, and like them, they plant gourds and other vegetables. They also devote themselves to the raising of domestic animals, such as cows, horses, sheep, goats, and chickens.

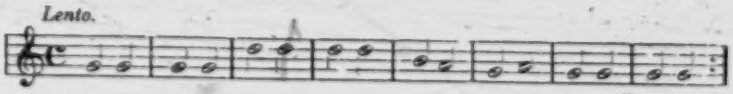
M 167 177 464 224 Even the Güisnáis frequently come out for jobs in the Argentine Republic, from where they also bring back weapons, in order to use them particularly in the woods, killing birds, wild boars, deer, and other quadrupeds.

M 174 771 776 [756] They have more religious ideas than other tribes, and it seems that their great-grandparents might have belonged to some former Argentine mission, because, more than others, they recognize a true divinity. /322/ Nonetheless in their great ignorance they confuse ideas, and in great fear they recognize in sorcerers a power that they do not have.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

Kausima dance is always obligatory. Thus in a case which came under my notice the dance was performed by a middle-aged woman who, holding the dancing-staff (*káhuis*) in her right hand, proceeded with slow regular steps backwards and forwards in front of the house, where the girl, in whose »honour» the dance was performed, was sitting motionless. The woman accompanied her dance with a peculiar monotonous chant marking time, as usual, with the *káhuis*. Sometimes one of the small girls went and joined her, holding the dancing-staff together with her and walking in the same time. The dance and chant was begun at sunset and continued with short intervals till midnight. The melody of the chant which was repeated over and over again, was the following:



It is evident that the object of the dance was to drive away or keep off the evil *möhsek* who were trying to harm the girl.

Exactly the same custom prevails among the neighbours of the Choroti in the south, the Ashluslay Indians, who in their culture are so closely related to the Choroti. The fact that the rattling dancing-staffs form a magical instrument peculiar to the Chaco tribes, may also be inferred from the puberty ceremonies in vogue among the *Lenguas* of Paraguay. These ceremonies are shortly described by Mr. Barbrooke Grubb, but since he gives no explanation of their significance I may mention them in this connection, with more reason since the Lenguas are culturally closely related to the Indians of the Mataco-Choroti group. The main dance is, as among the Choroti, performed by the women who circle round the girl to be initiated, chanting and marking time with their rattle staffs. A troop of lads, dressed in ostrich plumes and wearing masks to represent evil spirits, issue from the forest, running one behind the other in a serpentine formation, move in and out among the crowd, jingling bunches of hoofs and from time to time uttering prolonged shrill cries. At their near approach the women dance and chant with increasing vigour round the girl pretending to protect her and to drive off the masked »spirits» [1]). The idea just indicated by me with regard to the Choroti, namely, that the young woman will, through the initiation, become permanently har-

[1]) Grubb, *op. cit.* p. 178.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco
Toba SI12
Choroti SK6

dened against evil spirits, seems to appear very clearly from the puberty ceremonies of the Lenguas. The girl, in order to be hardened against the spirits, must be brought in close contact with them, but this must be arranged in such a way that they cannot do her harm. The lads have at first conjured the dangerous invisible foes and compelled them to enter into the masks by imitating them in their external appearance and by uttering cries which no doubt are supposed to imitate the cry of the spirits. When afterwards the girl comes in contact with the demons while they are thus subdued and rendered harmless, she is believed to obtain a certain immunity from them even for the future. The principle is exactly the same in other initiation ceremonies.

Among the *Tobas* the puberty ceremonies are more complicated when the girl is the daughter of a great chief, in which case the incident is celebrated by the whole community and with much the same ceremonies as take place when the chief's wife is in child-bed. For the five critical days the girl is not allowed to leave the house; she must fast rigorously and keep the whole body well covered. Every evening all the younger men from the neighbouring villages assemble outside the chief's house, shaking rattles, chanting, and drinking algaroba beer. During the day, again, the festival dance *Nomí* is performed by the men. The object of all these ceremonies is to conjure the evil spirits and prevent them from coming in the night to attack the girl. The Tobas fancy that on this occasion also the *peyák* arrive with the approach of night in the shape of snakes, trying with every draught of wind to penetrate into the house and to enter into the young woman, in which case it is believed that she will become pregnant with a snake, or fall ill and die.

Ideas of supernatural birth brought about by evil spirits entering into the woman in the form of snakes, seem to be common among the Tobas, as may be inferred from one of their myths which I shall relate in a subsequent chapter.

During the days that the girl is kept secluded she is also obliged to fast strictly. She is allowed to eat only the leaves of the plant *parák* (tusca, *Acacia aroma*) as well as the leaves and the fruit of the vine *tasi* (*charáde*, in the Toba language), the former raw but mashed, the latter boiled.

After the menses have passed, the mother of the girl together with other women go out on the plain to catch armadillos. The men, on the other hand, go out to hunt ostriches. After that a great feast is arranged, at which the women together with the girl in whose honour the feast is

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti 5K 6

take part in the dances, although courtship is connected with them. After the dances sexual intercourse is indulged in by the partakers in the festival, each girl choosing for herself a lover for that night among the dancing men.

Nordenskiöld mentions the Choroti as an instance of Indians who have purely profane dances, pointing out that they have special reference to the sexual life. The latter of course is true of some dances; but Nordenskiöld's mistake in regarding the Choroti dances as purely profane is due to the fact that he did not study their customs thoroughly and therefore failed to see the ideas underlying them. In fact, it is clear that the Choroti dances are gradually losing their original magical or religious significance and have a tendency to degenerate into mere amusements, a course of development which we frequently notice with regard to Indian customs. But even the Choroti dances still, in the main, retain their ceremonial character. Thus my Indian informant, an elderly man, told me that when the Indians dance they collect the whole supply of fruit gathered for the occasion in the house of an old man, i.e. a man initiated in the magic art; and *they believe that the dancing will make the fruit abundant* — not only these particular fruits, but those growing in the forest as well. The principle is again the same as in the Mataco dance to promote the growth of the sugar cane and in the Toba dance to make the chañar fruit abundant. As we have seen, the drumming, practised by the Choroti and the Mataco during the »season», has to a certain extent a similar object. That the chanting which accompanies the dances has at the same time for its object to frighten away evil spirits, is evident.

From this point of view it is interesting to compare the ceremonies performed by the Choroti during the »season» and the sexual liberty connected with them with certain »mysteries» of a similar kind practised by some Indian tribes in other parts of South America. Thus the Yurupary ceremonies of the Uaupes Indians in north-western South America present a close analogy to them. Among these tribes also certain mysterious ceremonies, consisting chiefly in dancing, are performed at those seasons of the year when the most important fruits reach maturity. The object of these ceremonies appears to be to influence the spirits which are thought to animate the plants and thus to promote fertility. Many facts show that these spirits are nothing but souls of the dead which have taken up their abode in the trees and plants. Moreover, at these mysteries sexual intercourse is promiscuously indulged in by those

2: Karsten E-5 (1911-1913)1932 SI7 Matacc
Toba SI 12
Choroti SK 6

taking part in them, evidently with a view to propagating the useful plant spirits and giving them an opportunity to enter into the women and to be reborn in human form.[1])

I believe that in the Choroti dances performed during the algaroba season and the sexual licentiousness which forms part of them we have in fact remains of similar mysteries in the Chaco, which for one reason or another have partly lost their original significance, having now at the outset only the general character of joyful harvest festivals.

Again, the great festival dance of the Tobas is the *Nomi* already mentioned. It is performed on all particularly solemn occasions, but especially during the algaroba season. It is the great »carnival» dance of the Tobas. Even some time before the proper season begins the Indians start to dance, believing that by dancing they can accelerate the ripening of the fruits (*niapilák map*), just as the Mataco and the Choroti believe that they can hurry on the ripening of the fruits and the coming of the season by beating drums. In dancing the Indians arrange themselves in a long line, or so as to form a crescent. With arms interlaced round each other's waists they move, running alternately to the right and to the left and at the same time forwards to the other end of the dancing place where the chain is broken. Thereupon they move back in the same way. As is customary in the Chaco, the dancers themselves chant the measure of their steps in a loud voice. Similarly the women do not take part in the dance although they are allowed to be present as onlookers. — During the season the dance goes on daily and is believed to influence continually the growth of the fruits.

But the *Nomi* dance is performed during the algaroba season with another object in view also. The Tobas believe that at this happy and joyful time they receive invisible guests in great numbers. These are the *kadepakál* or *ilúh*, i.e. the spirits of departed Toba Indians, who also want to be present at the joyful festivals and to take part in the drinking-bouts. But these guests, who are feared or at any rate awake uncanny feelings in the living, are not welcome and do not receive any sort of cult. On the contrary, measures are taken to keep them off, and the Indians told me that precisely this is part of the object of the dance *Nomi*. The dancing men by means of their movements and their loud chanting prevent the spirits of the dead from approaching the villages or the place where the drinking and feasting goes on.

[1]) See my *Civilization of the South American Indians*, pp. 427 sqq.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

C 783 827 [224] resorted to before going out on a hunting expedition. If the arms fails or trembles in pulling the bow, its weakness is, according to the idea of the Choroti, due to the presence of a *mohsek* in the blood; and they think that the evil demon will leave the body with the blood drawn. The same custom is practised by other tribes of the Pilcomayo. Thus C Nordenskiöld noticed it among the Ashlualay, although he did not understand its real meaning. After a trying fishing or hunting expedition, he says, the Indians may be seen to pierce their arms and legs furiously with hard wooden splinters, so that the blood flows in streams; and in order to get a keener sight to find the nests of the bees they likewise prick themselves above the eyes. In both cases the idea evidently is that the demon which causes the weakness or fatigue will be driven away from the body and perhaps killed with the pointed instrument.

M 304 783 The scars left by the cuts are tended with care and shown with satisfaction, indeed with pride. The Indians showed with apparent satisfaction even those cicatrices which the *palometa* fishes had inflicted on their body with their sharp teeth when they were bathing in the river. It is clear that according to the idea of the Indians not only the bleeding purges the body from impure matter and strengthens the limbs, but that the very scars which remain after the operation possess some mysterious power to keep off evil influences, a power which is much the same as that ascribed to real tattooing marks. This Indian view is especially conspicuous in regard to an operation which the whites sometimes perform upon Indians who have come in contact with European civilization, M namely, vaccination. I could myself appreciate the extraordinary importance ascribed to scars when during my stay at Esperanza I vaccinated 751 783 a number of Chaco Indians who were employed as labourers at the sugar factory. The Christians probably have no remedy which the natives 304 understand so well as this one, and they therefore as a rule submitted to the vaccine inoculation without remonstration, in fact, with pleasure. The small indelible marks which remained were regarded with wonder and admiration, and it was perfectly understood that they were a sort of warranty that the terrible disease would not attack the person wearing them.

M 302 189 Of all personal ornaments *body-painting* is the most important. All Chaco tribes practise it, and men and women alike. In the Chaco, as in other parts of South America, body-painting is essentially a custom of magical significance, as one can easily find out by considering the circumstances under which it is practised. The favourite colour of the

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

is applied about the socket, there is sometimes, covering it wholly or in part, a casing of snake or lizard skin (fig. 106). In order that the heavy arrow-head (together with its socket) may not happen to slip out of the shaft when the arrow is being carried in the belt, the foremost end of the string used in winding on the socket is often passed back along the socket ((in the way shown in fig. 105)) and tied on to the winding on the fore end of the shaft.

Poison is never put on the arrow-heads, but these are often provided with barbs (figs. 99—102). For bird-shooting the Choroti use arrows with a club-shaped head (fig. 103), in appearance similar to those I have described from the Chiriguano. Among the Choroti, however, there are seldom seen club-like arrow-heads that have, in the centre of their striking face, a projection such as the Chiriguano arrows have (see fig. 212 and p. 209). As regards the Choroti arrows I have here reproduced, their lengths, and other particulars about them, will be seen from the appended table.

Fig. 107. Feathering of the arrow, fig. 90. 1/1.

I think I ought to mention that in ancient Indian graves in the mountain region there have been found arrows of exactly the same types as those nowadays used by the Choroti and other peoples of the Chaco.[1] These types are, however, not those that are characteristic of the mountain region, the arrows of the mountain tribes now inhabiting the area of the ancient Peruvian realm having quite a different appearance.[2]

As regards arrow-heads, I wish to point out that even the most singular forms may be common to peoples that are each others' antipodes. In cases where human beings have reached much the same stage of cultural development, when they have similar needs, and access to the same sort of materials for weapons and other implements, then similar forms of implements are apt to be produced, independent of time and locality. As an example of this I may adduce that among the Esquimaux of western Greenland are to be found arrows with bone heads of exactly the same

[1] See for example Ihman (4), pp. 729—730; Joyce (1), plate XXVI, fig. 4; Lehmann-Nitsche (4), p. 37.
[2] See for example von Rosen (10), figs. 140—143.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

with the tail skin of a lizard. The blade and handle form an obtuse angle, and the edge has been ground on the outer side of the angle. This peculiar shape of knife corresponds to the shape of wooden knives that have been found in ancient Indian graves on Puna de Jujuy and in Quebrada del Toro.[1]

Fig. 145. Rope, of bast. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 244.

Fig. 146. Knife[2] with one-edged blade of soft iron, and handle of wood, covered with lizard skin. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 189.

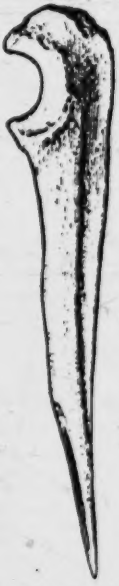


Fig. 147. Awl, consisting of the right ulna of some large feline, probably puma. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 183.

The Choroti also use wooden knives, resembling broad-bladed chisels.[1] Knives of this shape, which the Choroti now also make of iron, are principally used for cutting up fish, or for opening and dividing pumpkins, water melons, and other kinds of fruit. For cutting up meat, sharp-edged cane splinters, or — and nowadays most generally — iron knives, are used. As I have previously mentioned, the Choroti also use the sharp-toothed jawbones of the palometa fish (Serrosalmo sp.), as knives for hair-cutting, fig. 84.

[1] See, for example, von Rosen (10), figs. 59, 127—131.
[2] Nordenskiöld (11), figs. 12 and 13.

1: Rosen E-5 (1901-1902) 1924 SK6 Chorotl SK6

of that kind are especially apt to make it easy for the spirits to acquire possession of human beings. When a woman paints her face, that fact may, therefore, indirectly constitute a sign that she desires sexual intercourse, although the painting may perhaps have been done for the magical reasons above indicated.[1]

On page 58 I have remarked that on a reed-casing for keeping ostrich plumes the holes and the edges of the lids were painted red. This red-painting cannot very well be of a decorative character, seeing that there is not much of the paint visible when the lid is closed. According to my opinion, it is very probable that the paint has been applied in order to protect the delicate ostrich plumes contained in the casing from sustaining harm from evil spirits. The fact is that there is, among the Indians, a wide-spread belief that decay and similar processes are caused by evil spirits, on account of which it has been customary among certain Indian tribes to paint not only corpses but also grave equipment with red paint for the purpose of preservation against decay. And we also possess positive evidence that among certain Indian tribes the custom prevails of providing the property of the living with a similar magically protective, painting.

When through Karsten's paper on Indian conceptions as to the significance of painting,[2] my attention had been drawn to these circumstances, I took to examining most of the objects I had found as grave furniture at Quebrada del Toro and Puna de Jujuy (Argentina) in order to ascertain whether any of these objects had been painted before being put with the dead.[3] This examination revealed that nine wooden objects seemed to be painted all over with red paint, but as I, owing to the objects having lain such a long time in the ground, was unable with certainty to decide whether these objects really were painted, or whether their red colour was due to the natural colour of the wood, I had the objects in question submitted to chemical examination. It was then established that the objects were painted, and that the paint consisted of ferrix oxide, almost pure,[4] (so therefore not uruku, which is prepared from Bixa Orellana).

[1] Cf. Karsten (4), Chap. I.

[2] Karsten (4), Chap. I.

[3] As a result of the fact that all the ethnographical and archæological collections of the Riksmuseum are stored in most unsuitable premises, it has not been possible to find all of the objects.

[4] Analytical report No. 31/1934, Chemico-Technical Bureau (Kemiska Tekniska Byrån).

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

172 Particulars of the objects in question are given in the table here below:

Objects painted all over with red paint, found by the author in ancient Indian graves at Casabindo. Puna de Jujuy. Argentina.

Riksm. coll. No.	Class of object	No. of fig. in von Rosen (18)	No. of page on which object is mentioned in von Rosen (18)
03. 3. 6797	Long handled spoon	—	38
03. 3. 6836	Pointed stick	53	37
03. 3. 6809	Distaff	—	31
03. 3. 6819	Small club (fish club?)	43	34
03. 3. 6833	» » » »	41	33
03. 3. 6830	Wooden knife	39	32
03. 3. 6871	Miniature bow	45	34
03. 3. 6873	Fragments of arrow shaft	—	35
03. 3. 6821	Mesh spacer	39	32

304 751 On page 72 et seq., I have already described the manner in which the Choroti tattoo themselves, and also pointed out that this tattooing is of a magical character whilst at the same time this practice, like the painting of the face, is to a certain extent connected with the sexual life of the Indians. It is highly probable that not only the painting, but also the tattooing, of the face among the Choroti is done in order to prevent evil spirits from entering the body by way of eyes, nose, mouth and ears.[1] The arrow-like signs that sometimes are found as ornament done in tattooing or painting among the Chaco Indians (see for instance fig. 66), are, according to Karsten, in some way connected with the circumstance that the spirit of illness, called »mohsek ihitek» (i. e., the arrow-shooting mohsek) uses arrows for working harm upon people, for which reason arrows may be considered as amulets.[2] This, the Indians' way of looking at things, corresponds to the old saw: »like cures like», or »taking a hair from the dog that bit one».

531 751 Figures and ornamental signs, incised or burned-in, on calabashes for household use (figs. 127, 129—132) as well as on magic rattles of calabash (figs. 170 and 181), are, at least in certain cases, to be regarded as magical protective devices against evil spirits.[3] The significance of two figures, resembling human beings, carved on the magic rattle in fig. 181.

[1] Karsten (4), pp. 8 and 10.
[2] Karsten (4), pp. 196 and 191.
[3] Karsten (3), p. 179.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

The Ashluslay are called *Suhin*[1]) by the Lengua-Mascoy, *Etéhua* by the Tapiete, *Áshli* by the Choroti, *Sónena* or *Sónuash* by the Mataco, and *Sotegraik*[2]) by the Toba. A 101

They call themselves *Ashluslay*, as I have ascertained, and this is confirmed by HUNT[3]). The latter says it is the settlers on the lower Pilcomayo that call them Chunupi, a circumstance which has evidently misled him to identify them with a tribe of that name which has been known for a long time. The statements of settlers are to be taken with caution. An error of the same kind is to call the Ashluslay Tapiete.

The Choroti call themselves *Yóshuaha* (*Yójuaha*, acc. to HUNT.) However, I have preferred the former name, this being, moreover, the form in which it generally appears in the literature of the subject. It derives originally from the Chiriguano. They are called *Mánuc* or *Máninc* by the Mataco. C 101

No archaeological investigations of any kind have been carried out in the territory of the Choroti and Ashluslay Indians. Not a single old grave, not one old dwelling has been examined there. And probably an archaeological examination of their territory would yield but little. It is exclusively the modern civilisation of these Indians from which we will try to draw some conclusions anent their history. A C 102

The Choroti and the Ashluslay live on and in the vicinity of the Rio Pilcomayo, a considerable river which flows down from the Bolivian plateau into the Rio Paraguay. A C 131

For the greater part the Rio Pilcomayo is not properly navigable. About where it cuts the tropic of Capricorn it loses itself in extensive swamps, the well-known «Esteros del Padre Patiño». It has a very unsettled course. More than once it has changed its course, and as you go from the A C 133

[1]) HUNT, p. 257.
[2]) FRIČ (1) p. 210.
[3]) p. 257.

114 By his living like an Indian among Indians, Nordenskiöld has in an unparalleled way succeeded in enriching ethnographical science, and his research achievement is one of the most noteworthy in the history of modern South American exploration.

101 The Choroti Indians are also called Chorote, Choloti, Tsoloti, Soloti and Solote. The final »s» added to these tribal names comes from the Spanish plural form, and has therefore in later works rightly been left out. The name they call themselves by is »yófuaha», or »yóshuaha», which probably means »pigeon people». If so, the pigeon would be the totem animal of the Choroti.

After the publishing of the valuable research, made by Hunt, of the Choroti language, it has become necessary to class this tribe with the [197] Mataco group, although the material culture of the Choroti in many respects shows an equally close kinship with the civilization of certain Guaycurú and Mascoi tribes, such as the Toba and the Lengua. That the Choroti have had their abode in the Chaco ever since the Inca period is highly probable, because, as already mentioned, their material culture in a [174] very obvious degree points to a strong influence from the ancient mountain civilization to the west.

101 The section of the Choroti tribe among whom I pursued my study, 131 was at the time of our expedition located in the neighbourhood of Caiza (see map). Some of the Choroti I met in this district had, however, their chief place of resort on the Pilcomayo, and thither they intended to return after a visit to the sugar plantations in northern Argentina. As I have [166] been informed, my red friends from the Caiza region at some later time did something or other to the annoyance of the settlers of the district, whereupon they moved further into the Chaco, and have since that time probably never again come into contact with whites. According to Nordenskiöld, other Choroti have, however, immigrated into the country about Caiza. The main part of the Choroti tribe inhabits the region immediately to the east of the Pilcomayo, and roughly between 21° 45' and 22° 45' of south latitude.

Our main camp, Tatarenda, was situate a few leagues south-west of Caiza, and the Choroti of whom I made a study were located one league south-west of the camp.

000 Of the Choroti among whom I carried out my investigations, the men

[Text continues on p. 31]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

534 174 When pointing out that Gustav Bolinder saw music bows being used among the Busintana Indians of the mountain regions of northern Columbia, I made the following statement concerning the occurrence of this instrument in South America: »This music bow (the Busintana one) is almost exactly of the same kind as those in use among many African peoples. But, as we know, peoples who are widely separated from each other may, however, independently of each other make similar inventions. In this particular case there is, however, an additional circumstance which lends it an especial interest. The music bow is by the Busintana called 'marimba',

Fig. 167. Magic drum, consisting of a clay pot, partly filled with water, and with a skin stretched over it. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 10 3. 143.

a name which also in Africa is given to primitive musical instruments. 'Marimba', 'myrimba', 'marimbo' and 'kirimba' are words which occur in a great many Bantu dialects throughout Central Africa, and in every case signify musical instruments. In view of this fact, I think it not improbable that the use of the marimba was introduced into South America by slaves imported from Africa.«[1]

In a monograph on the music bow of the Busintana, Bolinder has subsequently adduced very strong reasons in support of my supposition that the music bow was actually introduced into South America from Africa in the above indicated manner.[2]

[1] von Rosen (9).
[2] Bolinder (2).

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

dor, to whom we are indebted for a detailed account of their manners and customs, calls them Chaná.

As far as we know, the Incas never seem to have conquered the Gran Chaco. Not until the middle or the end of the 15th century, according to tradition[1]) did they conquer the mountainous region between Cochabamba and Sta. Cruz de la Sierra, under Tupac Inca Yupanqui. On the other hand they presumably extended their rule in N. Argentina as far as Tucuman, and therefore to the Chaco Austral.

Thanks to the researches of the distinguished Swedish archaeologist, ERIK BOMAN, and others, numerous objects have been exhumed in N. Argentina which are characteristic of the Incas. MAX UHLE[2]) has proved beyond doubt that the pre-Incan Tiahuanaco or Aymara civilization extended to N. Argentina.

This remarkable civilization, called after the famous Tiahuanaco ruin, also touched the Chaco at another spot. In the district between Cochabamba and Sta. Cruz de la Sierra I found quantities of pottery undoubtedly attributable to the same civilization.[3])

A C 174

This shows us that in studying the history of the Chaco tribes we may expect cultural influences from the Guarani Indians that came from the east, i. e. the Chiriguano, from the Arawaks, i. e. the Chané, and above all from the civilized tract in the west, i e. from the bronze age civilization of the Quichua and Aymara, which in many respects stood so high. Probably, too, cultural influences may have reached the Chaco tribes from the civilized tract in the west through N. Argentina, i. e. by means of the Diaguita and Humahuaca. We might even expect to find among the Choroti and Ashluslay cultural influences deriving from the tribes that in the south inhabited the Argentine pampas.

[1]) NORDENSKIÖLD (12).
[2]) UHLE (3).
[3]) NORDENSKIÖLD (14).

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

To these must be added obvious cultural elements that have come directly or indirectly from the white races. AC 174

The task before us is now to determine, as exactly as possible, these conjectural influences from various sources, and to define their nature and range; also, if possible, to find out from what districts the Choroti and Ashluslay originally started for the tracts they now inhabit. AC 121

To this end I have adopted the method of marking on the map of S. America the geographical distribution of a great number of cultural elements characteristic of the Choroti and Ashluslay, i. e. I have marked on the map, as exactly as possible, the distribution of each cultural element throughout the S. American continent AC 128

I have therefore attempted to draw up maps of the weapons, ornaments, articles of clothing, household utensils, and so on, characteristic of the Choroti and Ashluslay Indians in South America.

I have likewise tried to sketch maps of the distribution of various examples of technical skill exemplified by these Indians. For this purpose I have turned to literary studies, besides utilizing the extensive collections that I made during my travels in S. America.

Thus, for instance, in determining the distribution of a cultural element, I have first mentioned its occurrence among the Indian tribes visited by me personally. These are, in addition to the Ashluslay and the Choroti, the Atsahuaca (in the border-land of Peru and Bolivia), Aymara, Baure, Canichana and Cayubaba (in N. E. Bolivia), Cavina (on the Rio Beni), Chacobo (in N.E. Bolivia), Chama (on the R. Madidi, a tributary of the R. Beni), Chané (on the R. Itiyuro in North Argentina, and the Rio Parapiti in Bolivia) Chimane (on the R. Maniqui, a tributary of the R. Mamoré), Chiriguano, Churápa (near Sa. Cruz de la Sierra), Guarayú (Guarayos, Bolivia), Guarayú-Pauserna, Huanyam and Huari (near the R. Guaporé), Itonama (in N.E. Bolivia) Mataco (in the Gran Chaco), Mosetene (on the R. Beni), AC [114]

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

V.

Cultivated Plants and Agricultural Tools.

A
C
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The Choroti grow small quantities of Indian corn, manioc, zapallo[1]) water-melon, tobacco, cotton, beans,[2]) calabashes, and sweet potatoes. The tilling of the Ashluslay Indians is more considerable than that of the Choroti. Thus, I have seen among them large manioc plantations. The water-melon, which did not exist in America at the time of the Discovery, reached the Choroti and Ashluslay from the whites. The Choroti call it «santia», from the Spanish «sandía».

A
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174

Manioc and probably tobacco, too, must have reached the Chaco from the north or the east. Where the Choroti and Ashluslay got the other cultivated plants from, i. e. whether they obtained them from the Bronze Age culture of the west, or not, is a question I do not venture to decide. In all probability they are not very old in the Chaco, for the Choroti and the Ashluslay are but too evidently tribes which are predominantly gatherers of wild fruits and fishermen to have practised agriculture for a long period of time. The peaceful Arawaks must have been largely instrumental in spreading the knowledge of agriculture in the Chaco. AZARA[3]) writes of the Guaná[4]): «Rozan para sembrar tabaco, algodón, mandioca, batatas. . . de que viven y no de la caza ni pesca.»

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[1]) Cucurbita.
[2]) In several varieties.
[3]) (2) p. 384.
[4]) Chané.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5
Chaco Indians SK4

A C I 177

25) Various kinds of handiwork.

a) The making of rope and string and spinning. Spindle with a knob on the upper end of the spindle rod. (Map 35) ..... +
b) Sewing or the use of the eyed needle ..... —
c) Knitting and plaiting. Technique 9. (Fig. 60.9) ..... +
d) Twisting of rope and string ..... —
e) Weaving ..... +
f) Pottery ..... —
g) Wood-carving ..... —
h) Bone and shell-bead work ..... —
i) Carving and ornamenting of calabashes .... —
j) Feather work ..... —
k) Leather work ..... —

The undoubted acquisitions of the Choroti and Ashluslay from northern S. America do not amount to very much.

On the other hand, we find a number of important culture-elements among the Chiriguano and Chané Indians who dwell on the borders of the Chaco. Their original home was in the northern part of S. America and they were not taken up by the Choroti, Ashluslay or kindred tribes. These culture-elements include:

Hammocks.

The seat.

Multi-pointed arrows.

Bow with sharply defined notches at the ends.

The panpipe. (Materials found in the Gran Chaco). The Indians may, however, have received the panpipe from the Bronze-Age culture in the west.

Basket work of various kinds.

A C I 174

From this it seems to me perfectly clear that the Choroti and the Ashluslay, like their neighbours the Toba, Mataco, and Lengua, did not migrate from the north to the region

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5
Chaco Indians SK4

A
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they now inhabit. Otherwise their standard of civilization would not be so sharply distinguished from that of the tribes dwelling to the north of them.

If those elements of culture are eliminated which the Choroti and Ashluslay have received from the whites, from the mountain civilization, and from northern and eastern S. America, the remaining culture-elements are certainly, for the most part, very ancient. They are partly culture-elements so widely distributed in S. America that we cannot say whence they originally came, partly culture-elements especially characteristic af the Gran Chaco and not found elsewhere in S. America, and partly such as prove that the Chaco Indians, before they were influenced by the whites, the mountain civilization, and the Chiriguano and Chané Indians, possessed a civilization which was closely connected with that of the Patagonians.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

XXXIV.

The End.

An endeavour to reconstruct the civilization of the Choroti and Ashluslay Indians before their coming under the immediate, or mediate influence of the whites gives the following results. They kept no cattle. They tilled the ground to no great extent and lived chiefly by collecting wild fruits and by fishing and hunting. They had no iron tools. They probably made their clothes out of caraguatá, cotton, and skins.

Prior to their coming into contact with the «civilized peoples» of western S. America, it is possible that they did not even till the ground, but lived entirely by the gathering of wild fruits, and by hunting and fishing. They had then no knowledge of the Caraguatá shirt, nor of most of the ornaments, musical instruments, games, etc, which they now possess. We may presume that they held their own fairly well in the struggle for life, but their life was poorer than it became after they had learnt the way of making and using a number of «articles of luxury» from the mountain civilization.

In only one respect can the influence from the north and east be said to have essentially modified their civilization, viz. in their having learned to cultivate the manioc and perhaps some other plants as well. Possibly, too, it was from there that they acquired the art of weaving. The occurrence of culture-elements like the fur-mantle, the bowstring of strips of skin, skin mats, etc. — things of small prac-

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

tical use in tropical countries — in the Chaco, north of the Tropic of Capricorn, points to the Choroti and Ashluslay having migrated to the Chaco from a district with a colder climate.

As a matter of fact there are, in the Chaco, culture-elements which prove that the Indians well understood how to adapt themselves to the peculiar natural conditions prevailing there.

During my journeys I also carried on investigations, like those I made among the Choroti and Ashluslay, among other tribes visited by me. It appears plainly enough, from the maps and tables I have given above, that the influence of the mountain civilization in N. E. Bolivia was far less marked than in the Chaco.

In N. E. Bolivia also there are Indians who preserve original culture-elements. Such are the Chama Indians, who are not thoroughly settled.

It is much to be desired that all the ethnographical material from S. America, collected in literature and in the museums, might be made the subject of an investigation according to the same method as I have employed here. Anyone possessing a thorough knowledge of a district and its natural conditions would then endeavour to give a clear account of the same. Maps of varying degrees of excellence have been published already, showing the geographical distribution of certain culture-elements, but no attempt has been made to draw up the history of tribes within a given area from the cartographical material at hand. It is important that the endeavour should be made to analyse the cultural life, as a whole, of the tribe or tribes, and not merely some few arbitrarily chosen culture-elements. Further, the investigator should always have actual knowledge of the natural conditions in which the tribe or tribes live.

The maps and information — original and derived from literature on the subject — which I am now publishing will, of course, lighten the labour of those who may study adjacent districts, just as previous accounts of the geographical dis-

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

of the districts mentioned, the forests are not of such a nature as to lend themselves, in the near future, to profitable exploitation. Neither is there any ground for supposing that in the interior of the Chaco, where the soil in the greater part consists of loess-like strata, there is any prospect of finding any valuable minerals, or any other important products of nature. The great possibilities for cattle-ranching that exist in certain parts of this region, will, however, probably facilitate its colonization. If, contrary to expectation, gold-bearing ground, for instance, were discovered on the Chaco, even those parts of the »great hunting ground« that are most difficult of access would, no doubt, before long be explored.

And it was precisely the thirst for gold and silver that first led white men into the Chaco. The Portuguese, Alejo García, and some countrymen companions were the first whites who visited this region. About 1520 these adventurers, at the head of an army numbering some 2,000 Guarani Indians, marched right across the Chaco, from Rio Paraguay to the Andes, and invaded Peru. From the Indians of Rio Paraguay, García had heard rumours of that country, and of its wealth in gold and silver, and it was covetousness of these precious metals that was the motive force in the hazardous and arduous march through the Chaco. Baron Nordenskiöld has established that this expedition was probably made some year, or years, before Pizarro's arrival in Peru, and that thus García and his companions probably were the first Europeans who obtained personal knowledge of the ancient Inca kingdom.[1]

Although the Gran Chaco, as we have seen, was visited by white men at the beginning of the 16th century, it was only in the latter years of last century that any detailed and reliable information became obtainable of the more inaccessible parts of this region. The French explorer, J. Crevaux,[2] who intended to make extensive research of the country and population around the Pilcomayo, was given no opportunity of carrying out his plan, for, already at the outset of his expedition, in 1882, he was murdered by Chaco Indians, probably members of the Choroti, as well as the Toba, tribe. Another French explorer, Thouar,[3] has described a journey across the Chaco.[3] The Norwegian, Lieutenant Storm, has published important observations from two expeditions of his on the

[1] Nordenskiöld (16), p. 46 et seq.
[2] Crevaux (1), pp. XIII—XVI.
[3] Thouar (1).

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

291 [[77]] The women of the Choroti, especially the younger ones, have very generally adopted the woman's garment common among the Chiriguano, which is called »tipoy» and consists of a cloak-like covering hanging from the shoulders, where it is secured with cactus spines (fig. 62). The cloth forming the material of these tipoys, is an acquisition by the Choroti from the whites. I saw Choroti girls that had not troubled to sew their tipoys together, but thought it sufficient to pin the edges together with cactus spines down one side. Occasionally the girls wore the tipoy from the hips, as seen in fig. 61. The original garb of the Choroti women consists of a deer skin, or a length of home-woven woollen cloth wrapped round the hips (fig. 21), leaving bare the upper part of the body. Nowadays one only sees elderly women dressed in this way.

301 Contrasted with the men, the women have very few, and very unpretentious, ornaments. The girls wear a necklace or two, made from glass beads or porcelain buttons (fig. 61 and 62), and lizard-skin finger rings. Now and again one may see a woman with armlets, or finger rings, consisting of threaded glass beads, pieces of leather or palm leaf (fig. 62, the girl on the extreme right, and fig. 152).

302 304 The practice of decorating the face by tattooing and painting is common to both sexes. The men, however, are not always tattooed, which, on the other hand, is the case with the women. Painting of the face, which may safely be assumed to possess magic significance,[1] is performed by men as well as women on all important occasions.

304 Whilst it is the prerogative of the men to adorn themselves with the showier ornaments, it is generally the women who display the more abundant tattooing (cf. figs. 63—66 and 71—76). The tattoo marks that a fully grown Choroti woman wears on her face, have not been worked on her all at the same time, but during different phases of her life as she grows up. According to Nordenskiöld, the Choroti begin tattooing their children already when the latter have reached an age of from 5 to 7 years,[2] and thenceforth various designs are added as the years pass. As a rule, the men are not tattooed, or they may have just a few tattoo marks (fig. 63), and it is exceptional to see Choroti men as profusely tattooed as the men in figs. 64—66.[3] As I have already pointed

[1] See Chap. XII.

[2] Nordenskiöld (13), p. 68.

[3] Compare, with this for instance, Lehmann-Nitsche (1), pp. 80 and 81, and Nordenskiöld (13), pp. 69 and 70.

[text continues on p. 75]

411 with the grain of the wood, and these point to the possibility that the casing may be concealing some defect in the stave. There is, however, nothing which prevents the casing on this bow from being, at the same time, an instrument of magic and a practical means of reinforcement.

411 284 [283] The bow string, which consists of two, three, or more strips of skin (usually deerskin),[1] is often twice the length of the bow (see figs. 90, 95 and 96). One end of the string is fixed with a hard knot to one of the bow ends fig. 93 a). This end of the bow is pressed on the ground, and then the stave is given a slight bend — with the help of the knee — and the string is wound on to the upper bow end, in the way seen in figs. 92 and 93 b. The spare end of the string is then tied along the outer side of the bow, as seen in fig. 90. This figure shows a comparatively well-made Choroti bow, without pared-down string-holds, or windings for holding the string in position, and with the string put on in the proper way. On the other hand, fig. 91 shows a bow with string-hold windings and a string badly put on. In shooting, the Choroti generally hold the bow so that the end wound with the loose end of the string points downwards (figs. 90, 91 and 96).

411 Even when the bow is »at rest» (that is to say, when the string is not much tightened), the middle part of the string, owing to the said curving of the stave ends, will be at a certain distance from the stave, which makes it possible to use the bow without first tightening the string. But if there is time for shortening the string, this is almost always done. The Choroti shorten and lengthen the bow string, in the same way as is done by the Chiriguano on their bows (see p. 208).

For the protection of the wrist from the blow of the string, the Choroti sometimes use broad wrist guards of leather.[2]

[177] The arrows used by the Choroti are, as a rule, tipped with some hard, heavy wood (figs. 97—103), but iron arrow-heads (figs. 104—106) are more and more coming into use. Occasionally, the fore end of a wooden arrow-head may be fixed into the marrow cavity of a sharpened piece of bone. Such bone-tipped arrows are, however, very rarely met with among the Choroti; for my own part, I failed to acquire more than a single

[1] The Choroti also use bow strings made of caraguatá fibre; Nordenskiöld (11), p. 36. I never myself, however, saw any bow strings of that kind.

[2] Nordenskiöld (11), p. 43.

[text continues on p. 94]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

of one, or both, holes which are at the side edges of the disc whistle, different tones are obtained, and if both the side holes are open, the whistle renders a third note. 534

A primitive type of whistle found among the Choroti, one which I have not myself seen, consists according to Nordenskiöld of the skull of some small animal, in which all apertures have been stopped up, with the exception of the *foramen magnum*.[1] The instrument is blown on by way of this orifice in the same way as are the flutes and disc whistles. Koch-Grünberg has reproduced and described two whistles made out of (nose-bear?) skulls (Nasua sp.) from the Kobé Indians on Rio Cuduiary, and one whistle consisting of a deer skull (Cervus rufus) from the Tukáno on Rio Tiquié.[2] These cranium whistles are partly plastered over with pitch, but the basal and nasal, orifices are left open, whilst the cranium whistles described from the Choroti by Nordenskiöld only have the *foramen magnum* left open. Hence the former can be used both as open and as closed whistles, and consequently can produce two notes (and eventually their harmonics), whilst the cranium whistles of the Choroti are only capable of one note (with a possible harmonic). I do not consider it improbable that certain, very singular-looking Old Peruvian whistles of earthenware or stone constitute forms of development out of the primitive cranium whistle.[3]

The cow-horn trumpets that Nordenskiöld has seen among the Choroti are certain to be post-Columbian cultural elements, seeing that there were no cattle in America prior to the invasion by the whites. In these trumpets the mouthpiece consists of a reed, and the tone is produced by means of a reed splinter, which is cut out, and which, when the horn is blown, vibrates in the same way as the metal tongue of an ordinary toy trumpet.[4] [177]

Nordenskiöld has seen music bows among the Choroti, but no instrument of that class has yet been described from that tribe, and as I personally got no opportunity of seeing a Choroti playing on a music bow, I am not in a position to describe the manner in which the instrument in question is played among these Indians.[5]

[1] Nordenskiöld (11), p. 187.

[2] Koch-Grünberg (3), pp. 303—304.

[3] See for example Mead (1), pl. IV, fig. 8; Joyce (1), p. 73 and plate VI, figs. 1 and 3; Jijón y Cámano (1), pl. XVII, XVIII and XIX; von Rosen (1), pp. 378 and 379, and fig. 356.

[4] Nordenskiöld (11), fig. 50.

[5] For the occurrence of music bows in South America, see: Bolinder (2), Nordenskiöld (18), pp. 80 and 84; (11), pp. 176 and 177, and (1), p. 15.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XXVIII.

The Influence of the Whites on the Material Culture of the Ashluslay and Choroti.

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In the foregoing I have given an account of the material culture of the Choroti and Ashluslay Indians, and of the geographical distribution over the rest of S. America of elements of civilization characteristic of these tribes. In what follows I intend, in continuation of the above exposition, to bring together in tabular form such culture-elements as plainly have a common origin, beginning with those which the Indians of the Chaco have received from the whites. Such things as tools, clothes, etc., acquired by the Indians from the whites are not included, but only those of which they got the idea from white men. In addition, there are domestic animals and some cultivated plants which have come to them from the same quarter. We will, then, first try to skim off the most recent layer, as it were, of the civilization of the Choroti and Ashluslay Indians.

The positive influence of white culture is, generally speaking, greater in those parts where the Indians live far away from the whites, than in in those where they live in direct dependence under the white man. Thus, the Ashluslay, who have preserved their independence, carry on ranching on a large scale, while some Mataco tribes, almost entirely dependent, have no cattle at all. Up to quite recent times the Ashluslay were[1]) in the happy position of being

[1]) At least they were so as late as A. D. 1908—1909.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

able to derive advantages from the whites without falling into irretrievable poverty.

Domestic animals and things connected with them are of course the most important contributions received by the Choroti and Ashluslay from the whites.

Otherwise, the cultural life and the handicrafts of the Choroti and Ashluslay Indians have been little influenced by the whites, i. e., when one thinks solely of positive and not of negative influence.

Table I.

Elements of culture received by the Choroti and Ashluslay from the whites + .

1)	Dwellings	---
2)	Beds	---
3)	Cultivated plants and agricultural tools.	
	Water melons	+
4)	Implements used in harvesting wild plants	—
5)	Hunting weapons and implements.	
	Pellet bow.' (Fig. 8. Map 5)	+ ?
6)	Weapons never or seldom used for hunting	
7)	Fishing tackle	—
8)	Domestic animals and articles connected with them	
	Horse	+
	Cattle	+
	Goat	+
	Sheep	+
	Poultry	+
	Cats	+
	Spurs	+
	Saddle	+
9)	Tools	
	Tools made of pieces of old iron (Indian work)	+
	Handles of iron tools. (Indian work)	+
10)	Implements for making fire.	
	Tinder-box for flint and steel	+

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

A
11) Hearth and its accessories ..... —
C
12) Utensils used in the preparation and consumption of food
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a) in preparing meal ..... —
b) Cooking pot ..... —
c) Spit ..... —
d) Vessels holding food to be eaten ..... —
e) Implements with which to eat. Horn spoon +
13) Means of indulgence and articles in connection .. —
14) Clothes ..... —
15) Articles connected with the deforming of the body —
16) Tattooing instruments ..... —
17) Ornaments for the body, etc ..... —
18) Toilet articles ..... —
19) Implements for carrying burdens ..... —
20) Articles for keeping things in ..... —
21) Games and playthings..... —
22) Signalling and musical instruments etc
Musical bows ..... +
Trumpets of cowhorn ..... +
23) Trophies ..... —
24) Property marks .....
25) Various handicrafts ?
a) Rope and string manufacture and spinning —
b) Sewing or the use of an eyed needle ..... —
c) Knitting and plaiting
d) Twisting of ropes and string..... —
e) Weaving ..... —
f) Pottery ..... —
g) Wood carving ..... —
h) Bone and shell bead work ..... —
i) Carving and ornamentation of calabashes.. —
j) Feather work ..... —
k) Leather work ..... —

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

XXIX.

The Influence of the Mountain Civilization in the Gran Chaco.

A C 177

Having given some account of the cultural influence of the whites in the Chaco, I will now bring forward the culture-elements which the Choroti and Ashluslay, as was explained above, seem to have received from the mountain civilization, i. e.; the Bronze Age civilization of western S. America. The western influence did not bring about any revolution in the civilization of the Chaco tribes, but it brought them a very considerable addition.

Table 2.

Elements of culture received by the Choroti and the Ashluslay from the mountain civilization. + +

1)	Dwellings	—
2)	Beds	—
3)	Cultivated plants and agricultural tools	
	Spades (Map 1)	+
4)	Implements used for harvesting wild plants	—
5)	Hunting weapons and inplements.	+?
6)	Weapons seldom or never used for hunting.	
	Knuckledusters (Map 6)	+
	Clubs with outstanding head	+
7)	Fishing tackle	—
8)	Domestic animals and articles in connection with them	—

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

9) Tools.
Wooden knives (in the form found among the Choroti and Ashluslay) ..... +
Toothed scrapers of wood ..... +
10) Tools for making fire ..... —
11) Hearths and their accessories.
Feather fire-fan. (Map 9) ..... +
12) Utensils used in the preparation and consumption of food.
a) In the preparation of meal ..... —
b) Cooking pots ..... —
c) Spits ..... —
d) Vessels holding food to be eaten: wooden bowls. (Map 12) ..... +
e) Implements with which to eat: wooden spoons. (Map 13) ..... +
13) Means of indulgence and articles thereto appertaining —
14) Clothes
Poncho ..... +
Shirt. (Map 16) ..... +
Woven girdle ..... +
Sandals. (Map 17) ..... +
15) Articles connected with the deforming of the body —
16) Articles connected with tattooing ..... —
17) Ornaments for the body .....
Threadcross (Map. 22) ..... ?
Shell-beads .....
The custom of making spangles of shell-beads (Map. 20) ..... +
Tassels on bands and clothes ..... +
Browbands (woven). (Map 21) ..... +
Netted hoods. (Chaco type) ..... +
18) Toilet articles.
Stick combs (in the form found among the Choroti and Ashluslay) +
Wooden combs ..... +

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

A
C
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19) Implements for carrying burdens: Earthen vessels carried by a string. (Fig. 4[illegible]) ..... +
20) Articles used for keeping things in ..... —
21) Games and playthings
    Games of chance in general (Map 27)..... +
    Tsúka game ..... +
22) Signalling and musical instruments etc.
    Skin drum and drumstick (Map 30) ..... +
    Long wooden whistle (Fig. 53) (Map 32).... +
    Round wooden whistle (Map 33)..... ?
23) Trophies. ..... —
24) Family marks. (Map 34)..... ?
25) Various handicrafts.
    a) Rope and string making and spinning.
       Bakaïrí spindle. (Map 35) ..... +
    b) Sewing or the use of the eyed needle. (Map 36) ..... +?
    c) Knitting and plaiting.
       Technique 5 (Map 37)..... +
    d) Rope and string making.
       Fine rope twisting ..... +
    e) Weaving.
       Ornamented borders on fabrics ..... +
       Kelim technique. (Map 38)..... +
    f) Pottery
       Painting of earthen vessels ..... —
       Handles on ditto (Map 39) ..... +
       Waterpots ..... +
    g) Wood carving ..... —
    h) Bone and shell-bead work..... —
    i) Carving and ornamentation of calabashes
       Calabashes with lids. (Map 42) ..... +
       Encaustic ornamentation[a] of calabashes (Map 43) ..... +
       Sewing of cracked calabashes. (Map 44) .. +

[a] [i.e. pyrograving. – Analys]

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5
Chaco Indians SK4

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E
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j) Feather work ..... —
k) Leather work ..... —

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From this we see that the influence of the mountain civilization in the Chaco has been very considerable. It is manifest, from the maps and from the facts adduced by me in the following, that nearly all the culture elements derived from the mountain civilization are lacking in most of the tribes of N. E. Bolivia. In that district, practically, only the Yuracáre possess these elements of culture.

An exception is afforded by the shirt, the distribution of which, however, has most certainly been considerably extended by missionaries in post-Columbian times.

The Chiriguano and the Chané possess sundry of the culture-elements common to the Choroti, Ashluslay and the mountain civilization. The Chané have certainly dwelt long in the tract they now occupy, while the Chiriguano, as mentioned above, as late as the opening of the 16th century, emigrated from the district around the Rio Paraná to the foot of the Andes. Thanks to the interchange of ideas and customs which has since taken place, the Chané and the Chiriguano have now a very similar cultural standpoint. We may presume that it is through the mediation of the Chané that the Chiriguano received certain culture-elements from the mountain civilization[1]).

The following table may serve to illustrate the above.

[1]) The Chiriguano may surely be reckoned among the tribes whose cultural level has been raised by the kidnapping of women. When they conquered the territory now inhabited by them, they seized the women of tribes possessing a higher form of civilization. Undoubtedly, they kidnapped large numbers of Chané women. Significantly enough it is pottery and weaving, i.e. chiefly female handicrafts, which have attained the highest pitch of development. The Guarayú, who emigrated at the same time as the Chiriguano to the tract they now inhabit, had not the same opportunities of raising their cultural level by the kidnapping of women, whence it happens that the material culture of the Chiriguano is considerably higher than that of the Guarayú.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5
Chaco Indians SK4

XXX.

Elements of Culture received by the Indians of the Gran Chaco from the northern part of S. America.

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In the foregoing I have collected the culture-elements received by the Choroti and the Ashluslay from the whites as well as from the Bronze Age culture of the west and south-west. In the following I shall review those culture-elements whose distribution is markedly northern.

The undoubted acquisitions of the Choroti and Ashluslay from this quarter do not appear to be many. The most important would seem to be the loom and the cultivation of the manioc. The latter is, however, of no great significance to these Indians, as the manioc cannot everywhere be cultivated within their boundaries. Later on, it will probably be proved that many of the culture-elements whose distribution is imperfectly known come under this heading.

Most likely it is the Chané Indians and, possibly, the Guarani peoples who, in this case, have been the bearers of culture.

Table 3.

Northern and eastern culture-elements = +.

1)	Dwellings.	—
2)	Beds.	—
	Cultivated plants and agricultural implements.	
	Manioc.	+

A C I 177

4) Implements used in harvesting wild plants. ..... -
5) Hunting weapons and implements. ..... -
6) Weapons seldom or never used for hunting .... -
7) Fishing tackle. .....
Fishing with baskets put over the fish. ..... + ?
8) Domestic animals and articles connected with them -
9) Tools. .....
10) Implements for making fire. .....
11) Hearths and articles connected with them. ..... -
12) Implements and vessels used in the preparation and consumption of food.
(a) Used in the preparation of meal.
Grater for manioc. (Map 11) ..... +
Wooden mortars. (Map 10) ..... +
(b) Cooking pots ..... -
(c) Wooden spit. ..... -
(d) Vessels out of which food is eaten. ..... —
(e) Implements with which food is eaten. —
13) Means of indulgence. ..... -
14) Clothes.
Palometa stockings. ..... + ?
15) Articles connected with the deforming of the body. ..... -
16) Tattooing instruments ..... —
17) Ornaments for the body ..... —
18) Toilet articles
Stamp for painting the face. (Map 24)..... + ?
19) Apparatus for carrying things
Band for carrying children ..... +
20) Articles used for keeping things in..... -
21) Games and playthings
Maize-leaf ball. (Map 29) ..... +
22) Signalling and musical instruments, etc. ..... -
23) Trophies ..... —
24) Property marks..... -

25) Various kinds of handiwork.

a) The making of rope and string and spinning. Spindle with a knob on the upper end of the spindle rod. (Map 35) ..... +
b) Sewing or the use of the eyed needle ..... —
c) Knitting and plaiting. Technique 9. (Fig. 60.9) ..... +
d) Twisting of rope and string ..... +
e) Weaving ..... +
f) Pottery ..... —
g) Wood-carving ..... —
h) Bone and shell-bead work ..... —
i) Carving and ornamenting of calabashes .... —
j) Feather work ..... —
k) Leather work ..... —

The undoubted acquisitions of the Choroti and Ashluslay from northern S. America do not amount to very much.

On the other hand, we find a number of important culture-elements among the Chiriguano and Chané Indians who dwell on the borders of the Chaco. Their original home was in the northern part of S. America and they were not taken up by the Choroti, Ashluslay or kindred tribes. These culture-elements include:

Hammocks.

The seat.

Multi-pointed arrows.

Bow with sharply defined notches at the ends.

The panpipe. (Materials found in the Gran Chaco). The Indians may, however, have received the panpipe from the Bronze-Age culture in the west.

Basket work of various kinds.

From this it seems to me perfectly clear that the Choroti and the Ashluslay, like their neighbours the Toba, Mataco, and Lengua, did not migrate from the north to the region

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

XXXII.

Elements of Culture received by the Indians of the Chaco from the southern part of S. America.

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There is no multiplicity of culture-elements of southern origin among the Ashluslay and Choroti.

They give the impression of ancient elements of culture-relics from a time when the Choroti and Ashluslay probably possessed a civilization similar to that of the Ona and Patagonians (before the introduction of the horse), when they were still living in a colder climate than the one where they now dwell, a climate where it was an advantage to be in skins.

The ball-game with the (hockey-like) stick is probably derived from the mountain civilization, though it now occurs only in the Chaco and among the Araucanians.

Table 5.

Southern Culture-elements occurring among the Choroti and Ashluslay.

1)	Dwellings.	—
2)	Beds	
	Skin mats	+
3)	Cultivated plants and agricultural implements	—
4)	Implements used in the harvesting of wild plants	—
5)	Hunting weapons and implements.	
	Bowstring of strips of skin	+
	Bow without notch at the end	+

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

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6) Weapons seldom or never used for hunting. .... —
7) Fishing tackle ..... —
8) Domestic animals and articles in connection with them. —
9) Tools. —
10) Implements for making fire. —
11) Hearths and articles connected therewith. —
12) Implements and vessels used in the preparation and consumption of food. —
a) Used in the preparation of meal. —
b) Cooking utensils. —
c) Wooden spit. —
d) Vessels out of which food is eaten. —
e) Implements with which food is eaten. —
13) Means of indulgence and articles in connection therewith ..... —
14) Clothes.
Cloak made of several skins sewn together. (Map 15) +
Women's garment of skin (loin-cloth) ..... +
Leather girdles of various kinds..... +
15) Articles connected with the deforming of the body —
16) Tattooing instruments ..... —
17) Ornaments for the body ..... —
18) Toilet articles .....
Hairbrush..... +
19) Apparatus for carrying ..... —
20) Articles used for keeping things in
Bag of Ostrichneck skin ..... +
Bags of whole skin of small animals..... +
21) Games and playthings.
Ball-game with hockey-like stick (Map 28) ..... +
22) Signalling and musical instruments, etc. ..... —
23) Trophies ..... —
24) Property marks ..... —
25) Various handicrafts.
a) Manufacture of rope and string and spinning —

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

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Twisting of skin thongs	.....	+
b) Sewing or the use of the eyed needle	.....	—
c) Knitting and plaiting	.....	—
d) Twisting of rope and string	.....	—
e) Weaving	.....	—
f) Pottery	.....	—
g) Wood-carving	.....	—
h) Bone and shell-bed work	.....	—
i) Carving and ornamentation of calabashes	..	—
j) Feather work	.....	—
k) Leather work	.....	+

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XXXIII.

Culture-elements among the Choroti and Ashluslay, the origin of which it is at present impossible to fix.

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We have been able to select certain culture-elements which the Choroti and Ashluslay received from the whites, a large number of which evidently came to the Chaco from the western area of civilization; some, again, derived from the northern and some from the southern part of S. America; and finally, some which seem to be peculiar to the tribes of the Chaco. There are still, however, a large number of culture-elements left.

We know, for instance, from what quarter the Choroti and Ashluslay learned the use of the handle on earthenware; but we do not know whence the art of making earthenware came to them. The distribution of the handle is markedly western, while the art of making pottery in general has been known all around the Chaco. Of course the Chaco Indians need not necessarily have adopted the manufacture of earthenware from the western area of civilization because their pottery was plainly influenced from that quarter. The same holds good concerning their use of the calabash, spinning, etc.

There is, as we saw in the foregoing, a large number of culture-elements among the Choroti and Ashluslay concerning which the literature on the subject gives so little information that it is impossible, at present, to indicate their distribution on the map. Culture-elements of this kind are, for instance,

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

network and dwellings. They are, accordingly, indicated in the following table.

Many culture-elements now occur almost everywhere in S. America where the natural conditions for their occurrence are found. Consequently, it is impossible to distinguish the source where the Choroti and Ashluslay have derived them. To this category belong most cultivated plants and many other certainly ancient elements of culture.

Table 6.

1)	Dwellings.	
	Chaco huts (Ancient element of culture)	+
	Cooking sheds (Distribution imperfectly known)	+
2)	Beds.	
	Rush mat. (Distribution imperfectly known)	+
3)	Cultivated plants and agricultural implements.	
	Maize	+
	Zapallo (Cucurbita)	+
	Cotton	+
	Beans	+
	Tobacco	+
	Calabash fruit	+
	Sweet potatoes	+
	Digging stick	+
	Club for breaking up clods (Distribution imperfectly known)	+
	Implement for seeding corn-cobs (Distribution imperfectly known)	+
4)	Implements used in harvesting wild plants	—
5)	Hunting weapons and implements.	
	Bow and arrow in general (ancient culture-elements)	+
	Arrow for shooting birds	+
	Bola	+
	Sling (Map 4)	+
	Wristlets used by bowman (Distribution imperfectly known)	+

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SK6 Choroti SK6
Ashlusley SK5

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Snares (Distribution imperfectly known)..... +

6) Weapons seldom or never used for hunting.
Bone dagger. (Distribution imperfectly known).. +
Fire arrow ..... +
Lance (Post-Columbian history imperfectly known) +
Leather armour (Post-Columbian history imperfectly known) ..... +

7) Fishing tackle.
Fishing by means of damming the stream. (Distribution imperfectly known) ..... +
Landing -net. (Distribution imperfectly known).. +

8) Domestic animals.
Dog. (Pre-Columbian distribution imperfectly known) ..... +

9) Tools.
Jaw of the pakmeta..... +
Bone awl. (Distribution imperfectly known)..... +

10) Implements for making fire.
Do. made from wooden rods (ancient culture element.) ..... +

11) Hearths and articles connected with them.
Wooden spit (Map 7) (ancient culture-element) .. +
Pit- oven. (Map 8) ..... +

12) Implements and vessels used in the preparation and consumption of food
a) Used in the preparation of meal ..... —
b) Cooking utensils in general ..... +
c) Vessels out of which food is eaten .....
Use of the calabash in general +
d) Implements with which food is eaten.....
Mussel-shell spoon (Distribution imperfectly known) +
Calabash spoon (Distribution imperfectly known) +
Eating-brush (Distribution imperfectly known) .. +

13) Means of indulgence
Tobacco-pipe (Map 14)..... +

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashlusley SK5

14)	Clothes.	
	Woven mantle (Post-Columbian history imperfectly known)	+
	Women's garment; so-called «tipoy»	+
15)	Articles connected with the deforming of the body	
	Ear-block. (ancient culture-element) (Map. 18)	+
16)	Tattooing (Map 19)	+
17)	Ornaments for the body.	
	Necklace of bored teeth	+
	Necklace and other ornaments of grains of corn, leather, etc	+
	Rings of segments of the tail-skin of the lizard	+
18)	Toilet articles.	
	Stick-combs (in general)	+
19)	Apparatus for carrying.	
	Carrying-net (ancient culture-element) (Map 25)	+
20)	Various articles for keeping things in	+
21)	Games and playthings.	
	Cat-cradle game. (Distribution imperfectly known)	+
	Stilts (Distribution imperfectly known)	+
	Bull-roarer (Distribution imperfectly known)	+
	Dolls in general	+
22)	Signalling and musical instruments, etc.	
	Rattle gourd (Ancient culture element). (Map 31)	+
	Girdles of the claws of animals	+
	Whistles in general	+
	Flutes in general	+
23)	Trophies.	
	Scalping	+
24)	Property marks. (Map 34)	—
25)	Various kinds of handiwork.	
	a) Manufacture of rope and string and spinning (in general)	+
	b) Sewing or the use of the eyed needle	—
	c) Knitting and netting.	

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

A
C
105
177

Several kinds of knitting and netting. (Distribution imperfect-ly known)	+
Mesh-stick (Distribution imperfectly known)	+
d) Twisting of ropes and string (in general)	+
e) Weaving	--
f) Pottery (in general)	+
g) Wood carving (in general)	+
h) Bone and shell-bead work (in general)	+
i) Carving and ornamentation of calabashes (in general)	+
j) Feather-work (very imperfectly known)	+
k) Leather-work (in general)	+

Mataco SI7
Choroti SK6

M /320 cont./
771 They have a vague idea of superior beings, whom they fear
776 without worshiping them; the cleverest one becomes the sorcerer
756 and exploits the poverty of his companions, especially today when
648 they are earning money from the whites, to whom they lend im-
464 portant services.

M They frequently move from the region that they occupy to
167 the Argentine Republic; they work, dress, learn some Spanish
177 and a slight smattering of civilization, and return to their lands to live as before.

Choroti

Ci The zone located southeast of Toba territory is occupied
131 by the Choroti Indians, who have their own language. They
197 occupy the geographic degree 22° 30' latitude and 64° 10' longitude, on the left bank of the Pilcomayo River.

Ci They are quite numerous and peaceful, and they are not
181 treacherous like their neighbors, the Toba. Nevertheless, they
648 inspire respect in all the neighboring tribes; if a mission were to be established at said degree, the conquest of all the Bolivian territory /321/ up to 24° would be accomplished without the need of so many small forts, which are such a great expense to the Nation and which do not create centers of trade and civilization.

Ci Father Gianelli in years past visited the Choroti Indians,
797 was received with displays of affection and appreciation, and
177 found among them good inclinations toward becoming civilized, but at that time the harvest was too much for so few evangelical workers.

Ci The Choroti are not so lazy and savage as the other tribes;
181 they devote themselves to the cultivation of a few seeds and to
241 the raising of cattle, although on a small scale. They are also
231 hunters, however, and when they occupy the banks of the
224 Pilcomayo, they take advantage of the fruits the river brings them, especially in the great floods.

/377/

Wooden Bowls and Basins

C 415 171 439 The Chiriguano also use wooden bowls (Fig. 49). I do not know whether they make them themselves or receive them from the half-breeds of the /Fig. 48 appears here/ San Luis region. In this latter case the Chiriguano of the San Luis (Entre-Rios) region would be the only ones to make them. In Tarija /Figs. 49-50 appear here / where these bowls are much sought after by the half-breeds, they were indicated to me as coming from that zone. The rare wooden bowls which /378/ I saw at Caipipendí had been bought by the Chiriguano in the course of their trips. The same origin must be attributed to the wooden troughs found among the Chiriguano who live near the Quichua half-breeds of Tarija department. These basins are used for washing food and also as bathtubs. Ci 415 177 The Choroti have wooden dishes (Nordenskiöld, 9, Fig. 20, p. 88) which have a shape very similar to that of the trough reproduced here (Fig. 50) and which doubtless were introduced among them either by the ancient Quichua or by the half-breeds. A 415 171 Among the Araucan of Argentina wooden basins are found, which are similar in every detail to those of the Indians and half-breeds of Bolivia and the specimen pictured here.

Chapter V

Tools of the Chiriguano

C 412 178 [177] The work tools the Chiriguano use nowadays are almost all of European manufacture. Here and there the ancient forms were kept when stone or bone were replaced by iron. Witness the adze of Plate XXII /see p.143 / which constitutes a curious survival of the eared or T-shaped ax certainly adopted by the Chiriguano after their migration and their establishment at the foot of the Andes. T-G [412 184] This type of ax is unknown to me from any other Tupi-Guarani tribe and is rare in the area occupied by the different nations belonging to this linguistic family (see Rivet, 1, pp. 149-155).

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

574 only smoke for pleasure, and I doubt whether they ever used the tobacco
276 ceremonially as is the rule among the Indians of tropical South America.
[177] The custom is evidently of comparatively recent origin and has been introduced by the whites.

101 *Choroti* is a Guarani name given to our Indians by the Avas (Chiriguano) and now recognized by themselves. Their proper tribal name, however, is *Jóhuaha* [1]), a word the etymology of which is obscure but which seems to be equivalent to »our own people». Among themselves the Choroti never use any other name than Jóhuaha.

114 In the history of the Gran Chaco, a small and peaceful tribe like the *Choroti* can have played only an insignificant rôle, and the earliest European explorers seem not to have known them. The first author who mentions them is Father Lozano, S. J., who in his book of 1733 calls them Xolotas. But he tells us absolutely nothing about them, and the same may be said of several later travellers who occasionally mention them. The Swedish traveller von Rosen, who made a short visit among the Choroti in 1902, has published a small study of these Indians under the title *The Chorotes Indians of the Bolivian Chaco* (Stockholm, 1904). But v. Rosen's paper is based on very superficial observation and contains several errors which make its ethnographic value rather problematic. [2]) This may partly be due to the fact that v. Rosen never visited the Choroti in their own land on the other side of the Pilcomayo river, but only those families of the tribe which have been in the habit of living for certain periods near the village Caiza, situated just north of Yacuiba, at the easternmost cordilleras of the Andes.

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[1]) Nordenskiöld erroneously gives this name as *Yóshuahá* (*Indianerleben*, p. 28) and Hunt equally erroneously as *Yofuaha* (*El Choroti o Yofuaha*, *Revista del Museo de La Plata*. Bd. 23. Liverpool, 1915). The Indians themselves most clearly pronounce their name *Jóhuaha*, with the accent on the first syllable. The f-sound is lacking in the Choroti language, as in the languages of many other South American Indians.

[2]) Thus, when v. Rosen says that »polygamy only occurs among the rich, and the caciques have quite a number of wives», this sentence alone contains three mistakes. First, the Choroti are strictly monogamous, any form of polygamy being prohibited by their social morality and their women, who are extremely jealous; secondly, there are no »rich» people among the Choroti, all being equally rich or equally poor; and thirdly, although we may speak of caciques or chiefs among them, these have very limited power and do not distinguish themselves from the rest of the tribe in the way v. Rosen's statement seems to indicate. — Evidently v. Rosen has confounded the Choroti chiefs with those of other and more advanced tribes, probably the Avas (Chiriguano) or the Tobas.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
Choroti SK 6

In subtropical land like the Chaco, where the weather is often very hot especially during the »summer-time», dress is naturally of the most simple kind. Both among the Mataco, the Choroti, and the Tobas, the most important article of the man's clothing is a small cotton waist-cloth which serves as a covering and protection for the genitals. In addition to this waist-cloth the Mataco and the Choroti formerly wore a kind of broad fringed leather-belt round the loins, whereas the Tobas covered the genitals with a small apron of skin or stuff. The rest of the body is among all the tribes generally kept entirely naked or is only covered by the usual necklaces and other ornaments, or by red *urucú*-painting. When the weather is cold, and on festival occasions, the men also wear big woollen blankets with interwoven linear patterns mostly in red colour. The blankets of the Lenguas and other tribes in eastern Chaco often show designs denoting venomous snakes etc., but such patterns are unknown to the Choroti, and where they are found they have originally been obtained from the interior of the country. Weaving is among all Chaco tribes exclusively a work incumbent on the women.

The Choroti man adjusts his blanket in different ways. In cold or wet weather it is wrapped round the body so as to cover one or both shoulders; when it is hot, he allows it to fall in a double fold from his waist, where it is either fastened by a belt or by tucking the folds of one corner into the other.

The usual clothing of the women is a short cotton petticoat reaching from the waist to a little below the knees, the upper part of the body remaining unclothed. This petticoat formerly consisted of deer or nutria skins sewn together, but since the present-day Choroti are poor hunters such skin loin-clothes are now rarely seen. According to Mr. Hunt, young Choroti girls have nowadays adopted the female dress of the Chiriguano (Avas), a kind of sleeveless, waistless gown caught at the shoulders with a couple of safety pins and known under the name of *tipoy*. At the time when I travelled in the Chaco these *tipoys* were only known to the women among the Bolivian Tobas, but not to the Choroti women, who always kept the upper part of their body uncovered and, in opposition to the Toba women, never showed any shame at displaying their bare breasts. A few necklaces, beads, or twisted feathers replace clothing on these nude parts of the body. Many of the personal ornaments of both men and women have the character of amulets or charms and will therefore be dealt with later on in connection with the religion of the natives.

Much the same may be said of the dress of the Mataco and the Tobas. Both of these tribes, and especially the Mataco, have been influenced

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

take part in the dances, although courtship is connected with them. After the dances sexual intercourse is indulged in by the partakers in the festival, each girl choosing for herself a lover for that night among the dancing men.

Nordenskiöld mentions the Choroti as an instance of Indians who have purely profane dances, pointing out that they have special reference to the sexual life. The latter of course is true of some dances; but Nordenskiöld's mistake in regarding the Choroti dances as purely profane is due to the fact that he did not study their customs thoroughly and therefore failed to see the ideas underlying them. In fact, it is clear that the Choroti dances are gradually losing their original magical or religious significance and have a tendency to degenerate into mere amusements, a course of development which we frequently notice with regard to Indian customs. But even the Choroti dances still, in the main, retain their ceremonial character. Thus my Indian informant, an elderly man, told me that when the Indians dance they collect the whole supply of fruit gathered for the occasion in the house of an old man, i.e. a man initiated in the magic art; and *they believe that the dancing will make the fruit abundant* — not only these particular fruits, but those growing in the forest as well. The principle is again the same as in the Mataco dance to promote the growth of the sugar cane and in the Toba dance to make the chañar fruit abundant. As we have seen, the drumming, practised by the Choroti and the Mataco during the »season», has to a certain extent a similar object. That the chanting which accompanies the dances has at the same time for its object to frighten away evil spirits, is evident.

From this point of view it is interesting to compare the ceremonies performed by the Choroti during the »season» and the sexual liberty connected with them with certain »mysteries» of a similar kind practised by some Indian tribes in other parts of South America. Thus the Yurupary ceremonies of the Uaupes Indians in north-western South America present a close analogy to them. Among these tribes also certain mysterious ceremonies, consisting chiefly in dancing, are performed at those seasons of the year when the most important fruits reach maturity. The object of these ceremonies appears to be to influence the spirits which are thought to animate the plants and thus to promote fertility. Many facts show that these spirits are nothing but souls of the dead which have taken up their abode in the trees and plants. Moreover, at these mysteries sexual intercourse is promiscuously indulged in by those

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

translated »big ears» — an appellation subsequently transferred to all such tribes within, or in the neighbourhood of, the Inca kingdom, among whom the wearing of ear-lobe discs was customary.

In our days, the practice of wearing ear-lobe discs is met with among a number of tribes distributed over the whole of that part of South America which lies to the north of the tropic of Capricorn.[1] On the Chaco, ear-lobe discs are extensively worn by the Choroti, Lengua[2] and Ashluslay, and are also found among some of the Mataco and Toba Indians.[3] Also in North America the custom of wearing ear-lobe discs, or blocks, appears to be very ancient.[4] The wearing of this kind of ear discs is, however, not limited to America, but is also found, among other places, in Central Africa.[5]

Fig. 52. Brush-like ornament of false hair, for wearing pushed in under the frontlet. Choroti, Gran Chaco, Bolivia. S. u. Riksm. 03. 3. 65.

Among the Choroti, all the men and youths have their ear-lobes pierced, and in the holes they wear discs (see for instance figs. 17, 30, 39, 53). These discs were almost always used for everyday wear, and invariably on state occasions. It very seldom happened that I saw a Choroti man without his ear-discs. Latterly, the practice of wearing ear-lobe discs has, in the same way as other old customs once prevalent among the Choroti, become less common, and nowadays it seems that the Choroti, for everyday use at least, often appear without their discs. The piercing of the ear-lobes is performed with a bone awl, or cactus spine, already during boyhood, but I did not see any boys under puberty age wearing discs. Neither is there anything in the literature indicating that Choroti boys put on ear discs before that age.[6]

But, on the other hand, immediately on having had their ear-lobes pierced, the Choroti children take to wearing bits of grass, or very slender

[1] Nordenskiöld (11), map 18.
[2] Koch (1), p. 318, and Hawtrey (1), p. 283.
[3] Nordenskiöld (11), p. 132.
[4] See for instance Moore (2), p. 282.
[5] von Rosen (4), plate 7, fig. A, and von Rosen (7), p. 124.
[6] When it has been stated that the wearing of ear-lobe discs has nothing to do with pubescence [Nordenskiöld (13), p. 68], this is correct only in so far as the ear discs of the Choroti, like the tembeta of the Chiriguano, may, perhaps, first and foremost be attributed with a magical significance, and that their character of being symbols of puberty is only a secondary one. Cf. Karsten (4), p. 155.

Mataco SI7
Choroti SK6

M /320 cont./

771 They have a vague idea of superior beings, whom they fear
776 without worshiping them; the cleverest one becomes the sorcerer
756 and exploits the poverty of his companions, especially today when
648 they are earning money from the whites, to whom they lend im-
464 portant services.

M They frequently move from the region that they occupy to
167 the Argentine Republic; they work, dress, learn some Spanish
177 and a slight smattering of civilization, and return to their lands to live as before.

Choroti

Ci
131 The zone located southeast of Toba territory is occupied
197 by the Choroti Indians, who have their own language. They occupy the geographic degree 22° 30' latitude and 64° 10' longitude, on the left bank of the Pilcomayo River.

Ci They are quite numerous and peaceful, and they are not
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648 inspire respect in all the neighboring tribes; if a mission were to be established at said degree, the conquest of all the Bolivian territory /321/ up to 24° would be accomplished without the need of so many small forts, which are such a great expense to the Nation and which do not create centers of trade and civilization.

Ci Father Gianelli in years past visited the Choroti Indians,
797 was received with displays of affection and appreciation, and
177 found among them good inclinations toward becoming civilized, but at that time the harvest was too much for so few evangelical workers.

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231 hunters, however, and when they occupy the banks of the
224 Pilcomayo, they take advantage of the fruits the river brings them, especially in the great floods.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
Choroti SK 7

In disposition the three tribes show great differences. The *Choroti* are pleasant and cheerful, and display to a high degree that humorous spirit which is often characteristic of the Indian even when he looks serious. They are lazy and carefree and love amusement, feasting, dancing, and games above everything. When the Choroti Indian has plenty of food and algaroba beer for the moment, he makes merry and eats and drinks as much as he can, but has no thought for the morrow and does not store provisions like the more advanced Chaco tribes. This particularly holds true of the men; the women, who in general are more industrious, show more forethought in this respect, collecting wild fruits in great quantities when they are in season, and keeping the seed-corn till the following sowing. But on the whole poverty is an outstanding feature of the material culture of the Choroti, and this is no doubt due to a great extent to their own character.

The Choroti are — at least nowadays — a peaceful people, and in the insignificant wars they have sometimes waged with the Mataco on the other side of the river, they have manifested very little organization or discipline. As I was told by settlers on the Pilcomayo, the Choroti were formerly more warlike, and like other Chaco tribes, they were even in the habit of scalping those enemies whom they killed during their raids.

The *Mataco*, although anthropologically closely related to the Choroti, differ from them considerably in character: The Mataco Indian is serious, taciturn, and gloomy, and in consequence more addicted to religion and superstition than his brother the Choroti Indian. At least nowadays, when the Indians are strongly influenced by European civilization, the Mataco Indian will not make a reliable servant and companion. Cleanliness is not a particular characteristic of the Choroti, but the Mataco are probably the dirtiest of all Chaco tribes. This too may in part be a consequence of their contact with the whites. On the other hand, the Mataco are more industrious and energetic than the Choroti, and accordingly, in their wars, have proved more valiant and capable of more organization than their primitive neighbours. In these respects the Mataco, at any rate the Bolivian tribes, resemble their neighbours the Tobas more than the Choroti.

As to the *Tobas*, their moral qualities and disposition have been described with much unanimity by many travellers. Nearly all have characterized them as bad, ferocious, treacherous, thievish, etc., qualities which they have especially displayed towards the whites. Typical on

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Of all this there was a cessation as soon as I had approached the village near enough for the dogs to give warning, by barking, that a stranger was coming. In answer to my question why there had been singing, drumming and shaking rattles, I was told that there had been a dance for somebody who had died in the village. From what the Indians represented to me I gathered that the dancing, the singing, and the »music» had been performed in order to protect the soul of the dead person from being attacked by evil spirits, but it is possible that, instead of this, the dancers were aiming at protecting the villagers from being harmed by the spirit of the deceased, or from the evil spirit who had killed the newly dead person. The latter explanation is more in correspondence with other observations of the customs of the Choroti Indians.

In the literature one finds a statement that the Choroti bury their dead in a lying-down position.[1] This mode of burying does occur among the Choroti, but these Indians also inter their departed ones in a hunched up, squatting position.[2] As an instance, the Choroti who were living near Tatarenda declared that they usually buried their dead in the last-mentioned position. This mode of burial may possibly be connected with cultural influence from the neighbouring Chiriguano, but in such a case that influence must have been active also among the Choroti living right away on the Pilcomayo, for all the Choroti skeletons (three) that Nordenskiöld excavated in the neighbourhood of Fort Crevaux had been buried in a sitting posture. Of the three Choroti skeletons unearthed by him at Caiza in the Tatarenda district, one was found »in a doubled-up posture, with one hand on the top of the head and the other placed on the chest».[3]

During our journey Nordenskiöld only excavated these six Choroti skeletons. He has kindly permitted me to publish his notes on the circumstances under which the skeletons were found. The data above referred to I have taken from the catalogue supplied by Nordenskiöld to the Ethnographical Section of the Riksmuseum, in which his original notes upon modes of burial are embodied (see preceding foot-note).

Even in my earliest published account of the Choroti Indians I made

[1] Karsten (3), p. 204.

[2] von Rosen (3), p. 13.

[3] This according to Nordenskiöld's original notes in the Riksmuseum inventory, 03. 3. Whether the skeletons excavated at Caiza were found in a sitting or lying down position is not expressly stated in the notes. But as regards the Choroti skeletons excavated at Crevaux, Nordenskiöld especially points out that they had been buried in a »sitting posture».

2: Karsten E-5 (1911-1913)1932 S17 Mataco

Choroti SK6

necessity of fishing also at that time compels them to stay near the river. But as soon as the rainy season sets in and the algaroba, tusca, and other fruits begin to ripen, the Indians take up their abode in the forest close by some small lagoon or a rare water-hole several leagues from the river, spending most of their »summer» time in drinking algaroba beer, feasting, and dancing. The Indians of the Guachalla region form the main bulk of the Choroti tribe and number about a thousand individuals. Their immediate neighbours in the south are the Ashluslay, to whom the Choroti are closely related in their culture. There is much communication between the two tribes and intermarriage is frequent. Thus the chief of the Choroti, the old Ātamo, was on his father's side of Ashluslay descent, but since mother-right prevails among the Chaco Indians, he had become a member of the Choroti tribe.

There seems to be a certain antagonism between the different Choroti tribes, in consequence of which they have very little intercourse with one another. I particularly noticed such an antagonism between those Choroti who live on the river and those living in the interior. It would have been impossible for me to get a guide among the people of the chief Toula to accompany me to Anempä's tribe. Since to these Indians, who in general live to a great extent by fishing, the possession of the river is of great importance, I suppose it is originally due to this enmity that some Choroti Indians have settled in the inhospitable regions in the interior where they are found to-day. These latter even speak a somewhat different dialect of the Choroti language. Thus, one of the commonest words in the language, the word for 'house', is in the dialect of the river Indians *uk*, in the dialect of the inland Indians again *sáuo*.

The Choroti living on the river call the Choroti tribe inhabiting the interior of the Chaco *Asówa*.

The total number of the Choroti I estimate at about 2,000 or a little more.[1] The surrounding tribes are much larger. Of these I have already mentioned the southern neighbours of the Choroti, the Ashluslay, whom the Choroti call *Ahle*. Their neighbours in the north are the Tobas, whom they call *Johlōki*, and another Chaco tribe, the Tapiete, whom they call *Ohuénik*. Their neighbours in the west again are the Mataco, whom the Choroti call *Hotenúk*. They have dealings with all these tribes, although at times they have been at war with them, or at

[1] Consequently, when Nordenskiöld estimates the Choroti at 4,000 individuals, this is a great exaggeration.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

9 b. 9 a.

Fig. 9 a. Pellet bow from Travancore, India; 9 b. from Brazil. After Antze.

evidently used principally by mestizos and civilized Indians.

Around Sta. Cruz in Bolivia the pellet bow is a favourite toy of mestizo children. KRAUSE[1]) mentions the pellet bow of the Brazilians in Leopoldina on the R. Araguaya, and emphasizes that the Karajá Indians learnt its use from them. He writes:

«Den Kugelbogen (bodóke) habe ich bei den Karajá nicht gesehen. Doch wurde mir bei der Südhorde mitgeteilt, dass sie ihn anzufertigen verständen, und dass die Kinder Steine damit zum Töten kleiner Vögel würfen. Wahrscheinlich haben die Indianer ihn von den Brazilianern übernommen, da Kinder in Leopoldina ihn vielfach als Spielgerät benutzen. Das Fehlen eines einheimischen Wortes für das Instrument lässt wenigstens schliessen, dass auch das Gerät nicht einheimisch ist.»

Both the Choroti and the Ashluslay have a special word for the pellet bow, but then as a rule they have some special word for an article they have got from the whites. The Choroti call the pellet bow «húsumpä», the Ashuslay call it

[1]) p. 274.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

«nok». In all probability neither the Choroti nor the Ashluslay received the pellet bow directly from the whites, but through the agency of some other tribe.

It is also of interest to note, that the distribution of the pellet bow in S. America is quite different from that of all the other cultural elements. This also argues in favour of the pellet bow not being an Indian cultural element in S. America.

In view of the above, I hold it best, for the present, to place the pellet bow among those cultural elements that the Indians of S. America received from the whites. This may seem rather bold, but, as stated above, there is much evidence in favour of this assumption. It proves how important it is to know the post-Columbian history of the cultural elements.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

Chané have received the name Chunquánti from the Quichua language. The Choroti word for game, «tsúka», and the Ashluslay name «tsukoc» are plainly derived from Chunca.

Just as in Sweden backgammon players, in counting, use words derived from the French language, e. g. «tres ess, cinca dus, troya-dus», etc., the Indians of the Gran Chaco employ words for reckoning derived from the Quichua language. When the Ashluslay and Choroti make a cast counting four points, they say «tauva» which, in the Quichua tongue, signifies four. When reckoning in other connections the Ashluslay say «it-chat-cúch» for four and the Choroti «inulitse» or «inujlitsi». When the Ashluslay throw three points they say «chimí». Three, in the Quichua tongue, is «quimsa», in the Ashluslay «pú-shana». The Choroti, for the same throw, only mark two, and say «kinrá». Otherwise they say for two «ti-nes» and for three «nahape». For one point the Choroti say «tsúka» and the Ashluslay «tsuká» which is also the first name for the game. «Chunca» signifies ten in the Quichua tongue and we recollect that, according to GARCILASSO, the Incas in their games always reckoned in tens.

This circumstance, that the game of chance in question has in the Chaco a name derived from the Quichua language and there used for «game» generally, and the fact that, in the Chaco, Quichua expressions are made use of in games *show that the Tsúka or Chunquánti game derived originally from the area of civilization in the west.*

As I have already pointed out in an article in the Zeitschrift für Ethnologie in 1910, there is a remarkable similarity betwen the Tsúka or Chunquánti game and certain North American games described by CUSHING. It would appear from this that these games or, at least, similar games belong to a very ancient layer of civilization in America.

In another article in the above mentioned magazine I have recently endeavoured to prove that some peculiar objects found in Peru and Ecuador, and described at length by

114 By his living like an Indian among Indians, Nordenskiöld has in an unparalleled way succeeded in enriching ethnographical science, and his research achievement is one of the most noteworthy in the history of modern South American exploration.

101 The Choroti Indians are also called Chorote, Choloti, Tsoloti, Soloti and Solote. The final »s» added to these tribal names comes from the Spanish plural form, and has therefore in later works rightly been left out. The name they call themselves by is »yófuaha», or »yóshuaha», which probably means »pigeon people». If so, the pigeon would be the totem animal of the Choroti.

After the publishing of the valuable research, made by Hunt, of the Choroti language, it has become necessary to class this tribe with the [197] Mataco group, although the material culture of the Choroti in many respects shows an equally close kinship with the civilization of certain Guaycurú and Mascoi tribes, such as the Toba and the Lengua. That the Choroti have had their abode in the Chaco ever since the Inca period is highly [174] probable, because, as already mentioned, their material culture in a very obvious degree points to a strong influence from the ancient mountain civilization to the west.

101 131 The section of the Choroti tribe among whom I pursued my study, was at the time of our expedition located in the neighbourhood of Caiza (see map). Some of the Choroti I met in this district had, however, their chief place of resort on the Pilcomayo, and thither they intended to return after a visit to the sugar plantations in northern Argentina. As I have [166] been informed, my red friends from the Caiza region at some later time did something or other to the annoyance of the settlers of the district, whereupon they moved further into the Chaco, and have since that time probably never again come into contact with whites. According to Nordenskiöld, other Choroti have, however, immigrated into the country about Caiza. The main part of the Choroti tribe inhabits the region immediately to the east of the Pilcomayo, and roughly between 21° 45' and 22° 45' of south latitude.

Our main camp, Tatarenda, was situate a few leagues south-west of Caiza, and the Choroti of whom I made a study were located one league south-west of the camp.

000 Of the Choroti among whom I carried out my investigations, the men

[text continues on p. 31]

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

I.

Introduction and Plan of the Work.

A
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In the following pages I will attempt to analyse the material culture of two Indian tribes and contribute to our knowledge of their history. For the material of my investigations I have taken two tribes in the Gran Chaco of S. America, the Choroti and the Ashluslay, of whom I gained some considerable first-hand knowledge during my journey in 1908—09. It is only of late that these tribes have been made the object of study.[1]) Their culture is much of the same kind, and has been preserved in tolerably complete primitiveness.

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HUNT[2]), who has studied the language of the Choroti and the Ashluslay, would identify the latter with the Chumupi, a Chaco tribe that has been known for a long time, but his assumption seems to me insufficiently established. In proof of this I here give a few common Ashluslay words, taken from HUNT's list of words, and place beside them equivalent Chumupi words, taken from LAFONE QUEVEDO[3]).

[1]) Cf., in addition to my own works, those of HUNT, v. ROSEN, HERRMANN, and LEHMANN-NITSCHE.

[2]) P. 257. In these notes only the page or the illustration is referred to, to which attention is drawn. The title of the work in question must be sought in the bibliography. Where more than one work is given under an authors name, a number is assigned to each work and quoted in these notes.

[3]) (1), p. 122.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6 ●
Ashluslay SK5
A
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	Ashluslay. acc. to	*Chunupi.* acc. to	
	HUNT.	FONTANA.	PELLESCHI.
Head	kās-Shatish	Niscan	Niscun
Hair of the head	thlai-Yis	Nojovee	Nahono
Eye	Tosij	Tacqui	Tucleebapé
Nose	Naash	Nijiveppe	Nihip
Ear (my)	Yi-kfe	Masleguep	Maij-lumbepp
Mouth	Ashi	Cuevep	Lóe-quebebb
Hand	Pakat	Isivep	Itzibeb, I-sip
Sun	Hyanchāklai / Shanchāklai / Finchāklai	Oló	Oló, Olôh
Moon	Hyuwekla / Shuwekla / Fyuwekla	Coepi	Chuhpi
Fire	Itoj	Nie	Ni-hiet
Water	Inaat, Inat	Maa	Mná

As can be seen, there is not the least resemblance between the Ashluslay and Chunupi languages.

The Choroti language is closely akin to that of the Mataco. HUNT holds the tribes belonging to the Mataco group to be very old inhabitants of the Chaco, from whose language other people took words for plants and animals that were new to them when they migrated to the Chaco. The Ashluslay language seems to have much in common, both lexically and grammatically, with those of the Mataco and the Choroti.

BRINTON[1]) was already of the opinion that the Mataco group represented the oldest population in the Chaco. He writes, »It is noticeable that all its members reside in contiguity, as if driven together by outer pressure on all sides.«

[1]) (1) p. 181.

Mataco SI7
Choroti SK6

M /320 cont./

771 They have a vague idea of superior beings, whom they fear
776 without worshiping them; the cleverest one becomes the sorcerer
756 and exploits the poverty of his companions, especially today when
648 they are earning money from the whites, to whom they lend im-
464 portant services.

M They frequently move from the region that they occupy to
167 the Argentine Republic; they work, dress, learn some Spanish
177 and a slight smattering of civilization, and return to their lands to live as before.

Choroti

Ci
131 The zone located southeast of Toba territory is occupied
• 197 by the Choroti Indians, who have their own language. They occupy the geographic degree 22° 30' latitude and 64° 10' longitude, on the left bank of the Pilcomayo River.

Ci They are quite numerous and peaceful, and they are not
181 treacherous like their neighbors, the Toba. Nevertheless, they
648 inspire respect in all the neighboring tribes; if a mission were to be established at said degree, the conquest of all the Bolivian territory /321/ up to 24° would be accomplished without the need of so many small forts, which are such a great expense to the Nation and which do not create centers of trade and civilization.

Ci Father Gianelli in years past visited the Choroti Indians,
797 was received with displays of affection and appreciation, and
177 found among them good inclinations toward becoming civilized, but at that time the harvest was too much for so few evangelical workers.

Ci The Choroti are not so lazy and savage as the other tribes;
181 they devote themselves to the cultivation of a few seeds and to
241 the raising of cattle, although on a small scale. They are also
231 hunters, however, and when they occupy the banks of the
224 Pilcomayo, they take advantage of the fruits the river brings them, especially in the great floods.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

necessity of fishing also at that time compels them to stay near the river. 614
But as soon as the rainy season sets in and the algaroba, tusca, and other 361
fruits begin to ripen, the Indians take up their abode in the forest close by some small lagoon or a rare water-hole several leagues from the river, spending most of their »summer» time in drinking algaroba beer, feasting, and dancing. The Indians of the Guachalla region form the main bulk of the Choroti tribe and number about a thousand individuals. Their [648]
immediate neighbours in the south are the Ashluslay, to whom the Choroti are closely related in their culture. There is much communication between the two tribes and intermarriage is frequent. Thus the chief of the Choroti, the old Ātamo, was on his father's side of Ashluslay descent, but since [611]
mother-right prevails among the Chaco Indians, he had become a member of the Choroti tribe.

There seems to be a certain antagonism between the different Choroti 619
tribes, in consequence of which they have very little intercourse with one 184
another. I particularly noticed such an antagonism between those Choroti who live on the river and those living in the interior. It would have been impossible for me to get a guide among the people of the chief Toula to accompany me to Anempä's tribe. Since to these Indians, who in general live to a great extent by fishing, the possession of the river is of great importance, I suppose it is originally due to this enmity that some Choroti Indians have settled in the inhospitable regions in the interior where they are found to-day. These latter even speak a somewhat different dialect of the Choroti language. Thus, one of the commonest words [197]
in the language, the word for 'house', is in the dialect of the river Indians *uk*, in the dialect of the inland Indians again *sáuo*.

The Choroti living on the river call the Choroti tribe inhabiting the interior of the Chaco *Asówa*.

The total number of the Choroti I estimate at about 2,000 or a [161]
little more.[1] The surrounding tribes are much larger. Of these I have 648
already mentioned the southern neighbours of the Choroti, the Ashluslay, whom the Choroti call *Ahle*. Their neighbours in the north are the Tobas, whom they call *Johlōki*, and another Chaco tribe, the Tapiete, whom they call *Ohuénik*. Their neighbours in the west again are the Mataco, whom the Choroti call *Hotenúk*. They have dealings with all these tribes, although at times they have been at war with them, or at

[1] Consequently, when Nordenskiöld estimates the Choroti at 4,000 individuals, this is a great exaggeration.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

000 the bird. And if he happens to be hunting in a district where ant-hills abound, he uses for concealment, instead, a bunch of creepers of the kinds that are growing on every termite hill. Where the country is open, and only grown with low bushes, Lengua hunters employ another trick. They close up the spaces between a large number of bushes that are more or less in a straight row, by which means a long, low, and hedge-like fence is produced. The bowmen are then posted at suitable points along the fence, and other Indians, who have been lying concealed at a distance, proceed to drive the ostriches towards it. Although the ostriches could easily jump the low fence, they are stupid enough to run along it, with the idea of finding an opening where they might get through. In that way they sooner or later get quite close to the bowmen, who are then easily able to kill them with their arrows.[1]

Fig. 108. Implement consisting of two reed splints, tied together. Said to be an imitative call instrument for decoying game into range for shooting. Choroti, Gran Chaco, Bolivia. 9/5. Riksm. 03. 3. 218.

224
● 198 The Choroti often decoy game by imitating the calls of various animals. The game-calls are sometimes produced by artificial means, sometimes without any instrument. Figure 108 shows an implement that, reputedly, was used for enticing game to approach within arrow range, but I have unfortunately no notes to explain the manner in which it was used. I reproduce it here, however, in the hope that some other Chaco student may be able to supply such information about it as is now lacking. The object consists of two reed splints tied together with their concave sides facing each other.

224 The Choroti are skilful trackers, though in this art they do not come up to the level of the game hunting tribes I came into contact with in Africa. When I was shooting in the neighbourhood of our Tatarenda camp, I often had with me Indians who assisted me to find the game, and to recover killed or wounded animals. They then always walked in single file (»Indian file«), as seen in fig. 109.

223 The snares that the Choroti use consist of spun caraguatá fibre; they are mostly used for catching birds, and are arranged either as springe snares, or are placed in a forked branch like an ordinary running noose trap.[2]

[1] Grubb (1), p. 85.
[2] Nordenskiold (17), figs. 45 and 48.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

136 481 292 I have mentioned that the Choroti do not possess any water-craft, so that when fishing with nets they often have to wade or swim. In doing this, they expose themselves to being attacked by palometa fishes. As a protection for their legs in wading, the Indians occasionally wear a kind of mail stockings of caraguatá (see p. 54), but when they are swimming, they often get badly mauled by these fierce fishes, and I saw several Choroti with enormous scars from the bites of palometas (fig. 53). It also happens, now and again, that Indians, whem swimming, get killed by caymans, which, here and there, are plentiful.

[286 824]

Fig. 118. Mesh-spacer of palo santo (Bulnesia sarmienti). Length 14.9 cm, width 3.0 cm; thickness along longitudinal axis 0.9 cm. The thickness decreases towards the longer edges, which are rounded. Choroti. Gran Chaco. Bolivia. Riksm. 03. 3. 342.

222 In the collection of the fruits, roots and pith of wild plants the Choroti possess an important source of subsistence. The Chaco Indians obtain edible fruits from, inter alia, the algaroba (Prosopis alba), the chañar (Gourlica decortitans), the mistol (Zizyphus mistol) and the tusca (Acacia aroma). The rootstocks of the caraguatá, or chahuar (Bromelia serra), plant are used for food by these Indians, and the same applies to the pith of the fan palm (Copernicia australis). For pulling down within reach the fruit-bearing branches of trees, the Indians make use of wooden hooks with a short arm and a long one, the latter then serving as a handle, whilst the tree branch which is to be bent down, is hooked with the shorter arm of the implement.[1] In digging up the spiny caraguatá plants the Choroti use a forked stick.[2]

[227]

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Fig. 119. Fishing hook of iron, with line of caraguatá fibre. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 238.

Fig. 120. Fish club of palo santo (Handle upwards). Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 87.

At the time of my stay among the Choroti, the part of the tribe with whom I was in touch carried on no other agriculture than the growing of pumpkins in a primi-

[1] Nordenskiöld (11), fig. 3.
[2] Nordenskiöld (12), fig. 49.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

VI.

Tools used for collecting Wild Plants.

For bending down the high branches of the carob-tree (algarrobo) and other fruit-bearing trees, the Choroti and the Ashluslay use a long wooden hook. For digging out the prickly Caraguatá plant, they use a kind of long wooden fork (see «Indianerleben», fig. 49). The implement reproduced in Fig. 3 serves to tear up high grass. None of these implements have been observed, as far as I know, outside the Chaco. I have therefore counted them among the typical cultural elements of the Chaco Indians.

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Fig. 3. Tool of wood used for tearing up high grass. Choroti. G. M. (D IIII). 1/5.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

is applied about the socket, there is sometimes, covering it wholly or in part, a casing of snake or lizard skin (fig. 106). In order that the heavy arrow-head (together with its socket) may not happen to slip out of the shaft when the arrow is being carried in the belt, the foremost end of the string used in winding on the socket is often passed back along the socket (in the way shown in fig. 105)) and tied on to the winding on the fore end of the shaft.

Poison is never put on the arrow-heads, but these are often provided with barbs (figs. 99—102). For bird shooting the Choroti use arrows with a club-shaped head (fig. 103), in appearance similar to those I have described from the Chiriguano. Among the Choroti, however, there are seldom seen club-like arrow heads that have, in the centre of their striking face, a projection such as the Chiriguano arrows have (see fig. 212 and p. 209). As regards the Choroti arrows I have here reproduced, their lengths, and other particulars about them, will be seen from the appended table.

Fig. 107. Feathering of the arrow, fig. 90. 1/1.

I think I ought to mention that in ancient Indian graves in the mountain region there have been found arrows of exactly the same types as those nowadays used by the Choroti and other peoples of the Chaco.[1] These types are, however, not those that are characteristic of the mountain region, the arrows of the mountain tribes now inhabiting the area of the ancient Peruvian realm having quite a different appearance.[2]

As regards arrow heads, I wish to point out that even the most singular forms may be common to peoples that are each others' antipodes. In cases where human beings have reached much the same stage of cultural development, when they have similar needs, and access to the same sort of materials for weapons and other implements, then similar forms of implements are apt to be produced, independent of time and locality. As an example of this I may adduce that among the Esquimaux of western Greenland are to be found arrows with bone heads of exactly the same

[1] See for example Boman (4), pp. 729—730; Joyce (1), plate XXVI, fig. 4; Lehmann Nitsche (4), p. 37.
[2] See for example von Rosen (10), figs. 140—143.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

000 the bird. And if he happens to be hunting in a district where ant-hills abound, he uses for concealment, instead, a bunch of creepers of the kinds that are growing on every termite hill. Where the country is open, and only grown with low bushes, Lengua hunters employ another trick. They close up the spaces between a large number of bushes that are more or less in a straight row, by which means a long, low, and hedge-like fence is produced. The bowmen are then posted at suitable points along the fence, and other Indians, who have been lying concealed at a distance, proceed to drive the ostriches towards it. Although the ostriches could easily jump the low fence, they are stupid enough to run along it, with the idea of finding an opening where they might get through. In that way they sooner or later get quite close to the bowmen, who are then easily able to kill them with their arrows.[1]

Fig. 108. Implement consisting of two reed splints, tied together. Said to be an imitative call instrument for decoying game into range for shooting. Choroti. Gran Chaco, Bolivia. 1/2. Riksm. 03. 3. 218.

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[1] Grubb (1), p. 85.

[2] Nordenskiöld (17), figs. 45 and 48.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

CHAPTER III.

The Choroti (3). Modes of subsistence.

Their various industries. Hunting. Bows. Arrows. Game-stalking. Game-driving. Decoying game by imitative calls. Tracking. Snares. War weapons. Clubs. Knuckle-dusters. Bone daggers. Knives made of cane. Mail shirts. Methods of warfare. Incendiary arrows. Ambuscades. Preparing for war. Scalping. Torture. Causes of war. Fishing. Nets. Driving fish. Blocking up fishing-water. Swimming and wading, in fishing. Fish fences. Pile-buildings used in fishing. Mush-spacers. Fish-hooks and lines. Fish clubs. Transportation of fish. Dangers in fishing. Gathering of wild food plants. Implements used in gathering wild plants. Agriculture. Cultivated plants. Agricultural implements. Cattle-rearing. Domestic animals. Nomadic life. Trading.

The Choroti subsist on hunting, fishing, the gathering of wild, edible plants, and, to some small extent, also on a very primitive form of agriculture, and by trading with their neighbours.[1]

Hunting of game is mainly done with bows and arrows, and snares. The pellet-bow and the sling are met with among the Choroti, but are only used as toys.[2]

The collection of Choroti objects that I presented to the Riksmuseum included 14 bows, only 11 of which are now to be found. They form the material upon which the following description of Choroti bows is founded.

The bow staves consist of some kind of wood which is hard, resilient and usually free from knots. Probably quebracho (Schinopsis lorenzii) and palo mataco (Achatocarpus praecox) are the woods most frequently used as bow stave material. The bows of the Choroti (figs. 90 and 91) are better made than those of the Chiriguano, but are not of such good workmanship as the bows that I have seen among the Toba on the upper Pilcomayo.

[1] The description I am here giving of the Choroti refers, unless otherwise stated, to this tribe's mode of living at the time my observations were made (1901). Since then, many changes have come into the Chaco Indians' mode of living.

[2] Nordenskiöld (13), p. 48.

[p. 85]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

shape as the strange-looking Choroti arrow, which is seen in fig. 102.[1] The Esquimaux, like the Choroti, live in a bone-and-wood age, although the latter people to a large extent use the bone-hard wood of several species of Chaco trees in the place of bone. In both cases the arrows are intended for hunting big game. It is a strange thing, however, that the arrows just referred to, from Greenland and from the Chaco, are so much alike in shape that one might point to a reproduction of the Esquimaux arrow in question as being the type of a lanceolate, barbed, Choroti arrow. As to the ancient Indian arrows of Chaco type found within the Andean region, previously referred to, it is, however, not only their form that is identical with the Chaco arrows, but also the material (reed, and species of wood that do not grow in the mountain region) is typical of the Chaco. This being so, it may with great certainty be established that the ancient Indian arrows in question really originate from the Chaco, and that we here have one of the many indications that point to old-time communication between the mountain region and the plains to the east of it.

The Choroti hunt all sorts of game, from jaguars, pumas and ostriches, to lizards and rats. Among edible game are counted, among others, also birds of prey (even vultures), foxes, armadillos, rats, lizards and snakes. On the other hand, some Choroti, at least, will not touch deer's flesh, as they believe these animals to be possessed by evil spirits.[2] Some of the species of animals just enumerated, too, are by certain individual Choroti considered dangerous to eat (see p. 114).

When the Choroti are out hunting with bow and arrow, they naturally endeavour to stalk as closely as possible up to the game, and then occasionally employ a stratagem common to many tribes who live by the chase, namely that of tying tall leafy bunches about waist and shoulders, so as to give the hunter the appearance of a bush. This stalking trick is also known to the Lengua. On this point, Grubb writes to the following effect: 'The ostrich is a very wild, though stupid bird, and the hunting methods of the Lengua are based on this fact. When hunting in a palm forest, the hunter ties a few palm leaves together and fastens them to his head and shoulders, so as to resemble a small palm. By means of this disguise he has no difficulty in getting within easy range of

[1] Solberg (1), p. 73, fig. 54, bottom row of arrows, the second specimen from the left.
[2] Karsten (2), p. 32.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

the bird. And if he happens to be hunting in a district where ant-hills abound, he uses for concealment, instead, a bunch of creepers of the kinds that are growing on every termite hill. Where the country is open, and only grown with low bushes, Lengua hunters employ another trick. They close up the spaces between a large number of bushes that are more or less in a straight row, by which means a long, low, and hedge-like fence is produced. The bowmen are then posted at suitable points along the fence, and other Indians, who have been lying concealed at a distance, proceed to drive the ostriches towards it. Although the ostriches could easily jump the low fence, they are stupid enough to run along it, with the idea of finding an opening where they might get through. In that way they sooner or later get quite close to the bowmen, who are then easily able to kill them with their arrows.[1]

Fig. 108. Implement consisting of two reed splints, tied together. Said to be an imitative call instrument for decoying game into range for shooting. Choroti, Gran Chaco, Bolivia. 2/3. Riksm. 03. 3. 218.

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[1] Grubb (1), p. 85.

[2] Nordenskiöld (17), figs. 45 and 48.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

301 That in primitive man there is an instinct for self-ornamentation, I
789 consider cannot be doubted. In children this instinct is found, and it is possibly also traceable among animals.[1]

[224]

Fig. 183. Hunting amulet. A jaguar or puma claw. Choroti, Gran Chaco, Bolivia. 1/1. Riksm. 03. 3. 399.

Fig. 184. Hunting amulet. The carapace of an armadillo's head. Choroti, Gran Chaco, Bolivia. 1/1. Riksm. 03. 3. 400.

000 According to my opinion, flowers and snail shells were certainly used as ornaments by our race long before the dawn of such mental development as made possible the idea of supernatural things. Prior to this, no »magic» properties of any kind were, of course, ascribable to natural objects. The faculty of sensing beauty in a material form is bound to be

[1] Apes and monkeys, in captivity, are sometimes said to try decorating themselves with necklaces, hats, etc. This may, however, result only from a desire to imitate. More remarkable, it seems to me, is that elephants, camels, horses and dogs are said to show evident satisfaction when gaily decked out.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

VII.

Hunting Weapons and Equipment.

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The Choroti are not eager huntsmen. The Ashluslay propably hunt more. Their only real hunting weapon is the bow and arrow. They also have snares of various sorts, though I do not know if they use them much. The sling and the bolas also occur among these Indians, but only as boys' weapons.

ODD

The *bow and arrow* are certainly very old cultural elements throughout S. America. We find them almost all over the continent and among all the really primitive peoples. As far as I know, this weapon is only wanting on the Upper Amazon, or at least was rare there, for in the oldest books of travels[1]) from these parts we are told that on the upper part of this river the Indians fought with spears which they flung with the throwing stick, whereas lower down the river they used the bow and arrow. In the mountainous regions and on the Peruvian coast, i. e. in the greater part of the cultural zone in the West, the bow and arrow was also a rare weapon[2]). One may really ask why the Indians there preferred to use the throwing stick rather than the bow, which latter was nowhere unknown to them. VEIGL gives us a good explanation[3]): «The throwing stick carries as far as a bow, and is much more convenient for them, as they can

[1]) See GASPAR DE CARVAJAL and ACUÑA.
[2]) But was not unknown there.
[3]) P. 256.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

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C
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Fig. 6. Leather bracelet adorned with tin-plate. Ashluslay, R. M. (A. 1025) 1/2.

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lets (fig. 6), which probably serve the same purpose. *Wristlets* for shooting with the bow have not been observed among many of the S. American Indian tribes. From books I know of them among the Abipone[1]), Botucudo[2]), Crichaná[3]), Goajiro[4]), Guató[5]), Ipurucotó[6]), Karajá[7]), Mbayá[8]), Mundrucú[9]), Chavantes[10]), Chieriabá (on the R. de S. Francisco, E. Brazil[11]), Cainguá (Cayua)[12]) and Ona[13]).

The wristlet is, as far as I can see, a cultural element the distribution of which is too little known for us to venture upon conclusions with regard to its origin.

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Snares are probably extensively used in S. America, though they have been little studied. On my travels I came across a great number of snares set in very various ways by the Choroti, Chané, Toba, Cavina, Guarayú (Pauserna) and Tumupasa.

I will not attempt here to determine the distribution of the different types of snares. The fact is probably that all, or almost all, the Indian tribes use snares of some sort, though they may have escaped the notice of most travellers. When opportunity offers I will describe and depict, in a sep-

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1) Dobrizhoffer, Vol. 2, p. 354
2) Wied, Vol. 2, p. 27
3) Barbosa Rodrigues, p. 161.
4) Therese v. Bayern (1) Vol. 1, Pl. 1, fig. 7.
5) Max Schmidt (3), p. 238.
6) Barbosa Rodrigues, p. 145.
7) Krause, p. 375.
8) Sánchez Labrador, Vol. 1, p. 316.
9) Martius, Vol. 1, p. 388.
10) " " " " 374.
11) " " " " 378.
12) Lopes, p. 320.
13) Gallardo, p. 150.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

are, or were, used by the (27) Ona [1]), (5), Chané [7]) (2) Ashluslay [7]), (1) Choroti [7]), (6) Mataco [7]), (7) Toba [7]), (3) Tapiete, (10) Araucanians [2]), (26) Patagonians [3]), (17) Abipone [4]), (16) Guató [5], [8]) and (8) Lengua [9]).

WHIFFEN mentions bow-strings of strips of skin from (61) tribes on the north bank of the Rio Yapurá [6]). MEYER assumes that a bow with tendon string, which has been preserved since the 17th century in Copenhagen, comes from (56) Mundrucú. I consider it probable that the string which is now on the bow did not originally belong to it [10]).

For the rest, bow-strings of vegetable material are found throughout S. America.

In fig. 5 a, b, c, and d are reproduced the most important of the types of arrow heads to be found among the Choroti and Ashluslay. Of these I have attempted to study the distribution of the arrows with thickened heads (the bird arrow) (fig. 5 d) and would refer to Map. 3 and the subjoined list of references concerning the distribution of these arrow-points. The map pays no regard to the shape of the points among the different tribes.

The Geographical Distribution of the Bird Arrows in S. America (Map. 3)

No. on the map.

45 Botocudo, WIED, Vol. 2, p. 25; v. IHERING (2), Pl. 2, fig. 5; THERESE VON BAYERN (1), Pl. 4, fig. 8.

14 Bororó, STEINEN (3), p. 485.

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1) GALLARDO, and others.
2) MEDINA, p. 134.
3) PIGAFETTA p. 12.
4) DOBRIZHOFFER, Vol. 2, p. 354; «of the entrails of foxes».
5) MAX SCHMIDT (3), p. 180.
6) p. 95.
7) Also of Caraguatá fibre.
8) Also of palm fibre.
9) GRUBB, p. 77.
10) Is it not possible that some little princes played with the bow, and having lost the original string had a new one fitted to it?

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

A
411
A
C
[224
411]
524
A
[284]
000

arms are made. I have not seen similar slings among any other tribe.

The *Bolas*, too, is only found among the Choroti and the Ashluslay as a toy or as a boy's weapon. There are no stones to make the balls, so these are made of wood.[1]) FRIEDERICI[2]) has indicated the distribution of the bolas. He mentions the Aymara, Quichua, Mojo, Mataco, Abipone[3]) and other Chaco Indians, the Araucanians and other allied tribes, the Indians of the Argentine pampas, the Patagonians and some of the Fuegians[4]). To this list may be added the Querandi[5]) at the mouth of the R. La Plata.

Fig. 7. Ashluslay Sling. R. M. (A. 1555).

Stones similar to those used for the bolas have been found in an extensive region in the west and south of S. America. A good deal that has been written about these stones is passed over by FRIEDERICI in the treatise just referred to; v. IHERING[6]) has written about these stones in S. Brazil. RIVET[7]) who offers us a very complete résumé concerning their distribution, is of the opinion that they were used in different places for different purposes. It must therefore not be assumed that wherever bolas-like stones have been found, the bolas was in use. EDER[8]) mentions the

[1]) See »Indianerleben» fig. 24.
[2]) (4) p. 34.
[3]) Also as a toy. FRIEDERICI (4), p. 34.
[4]) See also COLAZZI, p. 124.
[5]) SCHMIDEL, p. 150.
[6]) (4), p. 73.
[7]) (4) p. 177.
[8]) p. 209.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay-SK5

woods the bolas is an unserviceable weapon. Toy bolas, like those used by the Choroti and Ashluslay, have not been observed by me among any other tribe. From books I only know of toy bolas from the Patagonians[1]), Araucanians[2]) and among the Incas, as stated by FRIEDERICI[3]) following HUAMAN POMA.

A combination of sling and bow is the *clay-pellet bow* (Fig. 8). I have seen it among the (16) Mataco (Mataco-Vejos), (2) Ashluslay, (1), Choroti, (3) Tapiete, (22) Yuracáre, (4) Chiriguano, (5) Chané (23) Churápa, and (87) Mestizos of Sta. Cruz in Bolivia.

Fig. 8. Pellet bow. Ashluslay. G. M. (A. 1798) 1/4.

GUSTAF ANTZE has written a treatise on the distribution of the pellet bow in the world. According to him, it is in use in the following districts and among the following tribes of S. America: (87) Brazilian coast, W. of Cabo Frio, (87) Sta. Catarina, (3 c) Machali on the R. Belmonte (21) Caingná (16) Guató, (17) Abipone, (8) Lengua (1), Guarani (Paraguay) (IV) Guaná (11) Chamacoco, (X) 4 Payaguá (II) Tereno (9) Toba, (12) Mbayá (Kadiuéo) (75) Angaité (87) among Portugese boys in Leopoldina, and among the (13) Karajá.

As seen from Map 5, the pellet bow has an easterly and much concentrated distribution in S. America. It also occurs in India and E. Asia. It appears to me improbable that the pellet bow should have been invented independently in Asia and in S. America, and I almost came to the conclusion some time ago that the pellet bow reached the New World from the Old in some manner in pre-Co-

[1]) OTTER and HAVEN p. 123.
[2]) FRIEDERICI (4), p. 34.
[3]) " "

Mataco SI7
Choroti SK6

M /320 cont./

771 They have a vague idea of superior beings, whom they fear
776 without worshiping them; the cleverest one becomes the sorcerer
756 and exploits the poverty of his companions, especially today when
648 they are earning money from the whites, to whom they lend im-
464 portant services.

M They frequently move from the region that they occupy to
167 the Argentine Republic; they work, dress, learn some Spanish
177 and a slight smattering of civilization, and return to their lands to live as before.

Choroti

Ci The zone located southeast of Toba territory is occupied
131 by the Choroti Indians, who have their own language. They
197 occupy the geographic degree 22° 30' latitude and 64° 10' longitude, on the left bank of the Pilcomayo River.

Ci They are quite numerous and peaceful, and they are not
181 treacherous like their neighbors, the Toba. Nevertheless, they
648 inspire respect in all the neighboring tribes; if a mission were to be established at said degree, the conquest of all the Bolivian territory /321/ up to 24° would be accomplished without the need of so many small forts, which are such a great expense to the Nation and which do not create centers of trade and civilization.

Ci Father Gianelli in years past visited the Choroti Indians,
797 was received with displays of affection and appreciation, and
177 found among them good inclinations toward becoming civilized, but at that time the harvest was too much for so few evangelical workers.

Ci The Choroti are not so lazy and savage as the other tribes;
181 they devote themselves to the cultivation of a few seeds and to
241 the raising of cattle, although on a small scale. They are also
231 hunters, however, and when they occupy the banks of the
224 Pilcomayo, they take advantage of the fruits the river brings them, especially in the great floods.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
Choroti SK 6

M 241 seldom allows them to reach maturity. Besides the drought, birds, ants, locusts and rats often destroy the crops. The same fruits and cereals are cultivated by the Mataco and the Tobas in Bolivia, maize and manioc however with greater success than among the Choroti, since the climate there is more favourable. On the whole, the Chaco tribes are greatly dependent for their subsistence on the crops nature spontaneously gives them, and the great rôle that wild fruits like the algaroba, the chañar, the tusca, and a few others play in the economic life of these Indians has already been mentioned. It is mainly owing to these useful trees that the interior parts of the Chaco are habitable for people living in a state of nature.

T 241 184 439 The Bolivian Tobas, although they cultivate maize on a small scale, still get their main supply of this important cereal from the Avas in the north, with whom they carry on a sort of trade. Generally they get the maize in exchange for dried fish, which they store in considerable quantities during the summer season.

M T C 226 Fishing is the main occupation of the tribes living on the River Pilcomayo, and these Indians are therefore never seriously threatened by starvation. During the rainy season, when the river is swollen, fishing is often impossible; the proper season begins in April or May when the water is low and fish appear in abundance along the banks of the river. All Pilcomayo tribes use nets made of *caraguatá* fibres and of a peculiar triangular form, and since they have no canoes or vessels of any kind they always catch the fish by swimming and diving, in which they display remarkable skill. The Tobas, who are particularly skilled fishermen, use not only nets, but also, and I believe more commonly, bow and arrrows, a method only occasionally practised by the Choroti and the Mataco. When the Indians have caught a fish they instantly kill it with a small club of palo santo if it is a large one, if it is of a smfaller kind simply by biting the head.

T 251 438 During a big fishing expedition the Indians, at any rate the Tobas, sometimes catch fish in enormous quantities. They preserve them by roasting, then store them in special shelters, formed of a roof made of reeds and palm-leaves resting on four poles. This dried fish forms an important article of exchange among the Tobas.

M T C 224 Next to fishing, hunting is the most important means of subsistence of the Chaco Indians, but in this respect also the Choroti and Mataco are inferior to the Tobas. Especially the Choroti seemed to me to be poor hunters. In the parts of the Chaco inhabited by these Indians game is scarce, and with their comparatively small bows and arrows they only

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
Choroti SK 6

M T C 224 C [262]

rarely succeed in killing a tapir, a deer, or a wild pig. Besides, the deer is an animal of which the Choroti have a superstitious fear, and its flesh is never eaten by them; when they kill one, they only keep the hoofs, which are used as magical rattles, the leg-bones, of which instruments used for ceremonial blood-letting are made, and the skin which is used for different purposes. Of birds, as I have stated before, the ostrich is especially appreciated both on account of its flesh and its plumes, which play a great role as personal ornaments and to which magical power is ascribed. In hunting the ostrich the Choroti, like other Chaco tribes, avail themselves of the trick of binding palm leaves together and placing them on the head and shoulders so as to resemble a young tree. Disguised in this way, the Indians generally succeed in getting within easy range of the shy bird, and are thus able to bring it down with their arrows. Another trick of which the Indians often make use in hunting is that of imitating the cry of certan animals and birds by means of round wooden whistles, particularly invented for this purpose. With the same whistles, which are supposed to possess magic power, they also imitate the supposed whistling sound of the spirits, which are thereby frightened away.

T 224

The Tobas are much more skilled hunters than the Choroti and the Mataco, and at least in Bolivia, the country inhabited by these Indians is comparatively rich in game. Thus tapirs, deer, and wild pigs, of which latter there are two varieties, are frequent in the forests, and the Tobas hunt them eagerly, using bows and arrows as well as lances as weapons. All Indians and particularly the Tobas, are expert in stalking ainmals; the latter are thereby aided by their dogs which are specially trained for the hunting of the wild pig. Even the jaguar and the puma are hunted by the Tobas with dogs.

M C 231

Of domestic animals the Chaco Indians keep dogs, sheep and goats as well as fowls. [1] Horses were long ago introduced among the Tobas who

[1] Nordenskiöld, when treating of the domestic animals of the Bolivian Indians in his *Ethnography of South America seen from Mojos in Bolivia*, p. 114, amongst other things mentions that in Mojos only the civilized Indians keep cattle, which have been introduced by the whites, and adds the following erroneous statements as regards the Chaco Indians: »In the Chaco, on the other hand, *even the independent Indians have cattle* which play an important part for them. *The Indians keep no sheep or goats*». I wish to point out that neither the Tobas nor the Choroti, nor the Mataco on the Pilcomayo keep cattle. On the other hand, sheep and goats are kept by *all* Pilcomayo tribes and, as far as I know, by all other Chaco Indians, except perhaps some savage tribes in the interior of the unknown Chaco.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

CHAPTER XVII.

Magical ornaments and amulets.

In my *Civilization of the South American Indians* I have shown that most Indian ornaments have originally had a purely magical significance, although among tribes affected by European culture they have gradually lost this significance and become real »decorations». Among the Chaco Indians also this course of development is conspicuous, for instance with regard to tattooing, body-painting, and the majority of other personal ornaments. The principles of *tattooing*, as it is practised by the Choroti, Mataco, and Tobas, have been set forth by me in a previous chapter.[1]) Tattooing is first of all closely related to scarification and bleeding, customs quite commonly practised by the Indians in all parts of South America. Blood-letting is in itself regarded as a method of purifying the human organism from evil and impure spirits. The spirits are supposed to enter the system, and especially to mix in the blood, thus giving rise to ailments of different kinds and to a state of weakness in the particular part of the body to which they have attached themselves. The Indian thinks that by bleeding that part he will rid himself of the dangerous intruder, just as he sometimes thinks it will leave his body with the mere perspiration, and this belief is naturally supported by the fact that in certain cases such purgations may really give some relief. The Chaco Indians are quite familiar with this idea. Thus among the *Choroti* it is a common thing for the men to bleed themselves with a sharp bone obtained from a certain »magical» animal or a splinter of a certain wood before certain important undertakings. Thus they say that, by drawing blood from the arm, the limb will get more strength for pulling the bow; the practice is therefore especially

M 789

M 783 827

C 783 827 224

[1]) See *supra*, pp. 89 sq.

[p. 179]

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

C 783 827 [324] resorted to before going out on a hunting expedition. If the arms fails or trembles in pulling the bow, its weakness is, according to the idea of the Choroti, due to the presence of a *mohsek* in the blood; and they think that the evil demon will leave the body with the blood drawn. The same custom is practised by other tribes of the Pilcomayo. Thus C 171 Nordenskiöld noticed it among the Ashluslay, although he did not understand its real meaning. After a trying fishing or hunting expedition, he says, the Indians may be seen to pierce their arms and legs furiously with hard wooden splinters, so that the blood flows in streams; and in order to get a keener sight to find the nests of the bees they likewise prick themselves above the eyes. In both cases the idea evidently is that the demon which causes the weakness or fatigue will be driven away from the body and perhaps killed with the pointed instrument.

M 304 783 The scars left by the cuts are tended with care and shown with satisfaction, indeed with pride. The Indians showed with apparent satisfaction even those cicatrices which the *palometa* fishes had inflicted on their body with their sharp teeth when they were bathing in the river. It is clear that according to the idea of the Indians not only the bleeding purges the body from impure matter and strengthens the limbs, but that the very scars which remain after the operation possess some mysterious power to keep off evil influences, a power which is much the same as that ascribed to real tattooing marks. This Indian view is especially conspicuous in regard to an operation which the whites sometimes perform upon Indians who have come in contact with European civilization, namely, vaccination. I could myself appreciate the extraordinary importance ascribed to scars when during my stay at Esperanza I vaccinated a number of Chaco Indians who were employed as labourers at the sugar factory. The Christians probably have no remedy which the natives understand so well as this one, and they therefore as a rule submitted to the vaccine inoculation without remonstration, in fact, with pleasure. The small indelible marks which remained were regarded with wonder and admiration, and it was perfectly understood that they were a sort of warranty that the terrible disease would not attack the person wearing them.

M 751 783 304

M 302 189 Of all personal ornaments *body-painting* is the most important. All Chaco tribes practise it, and men and women alike. In the Chaco, as in other parts of South America, body-painting is essentially a custom of magical significance, as one can easily find out by considering the circumstances under which it is practised. The favourite colour of the

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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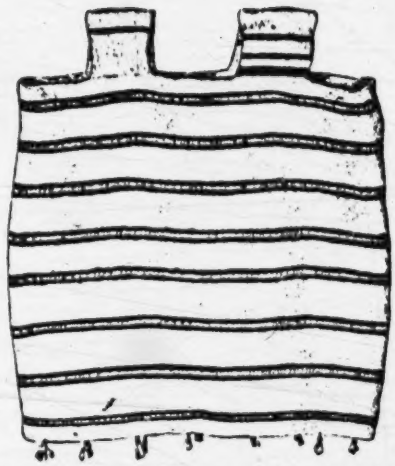
226
[714]



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[284]

Fig. 36. Mail shirt, knitted of caraguatá string. Worn principally as a protection against arrows. Choroti. Gran Chaco, Bolivia. 1/5. Riksm. 03. 3. 382.

302
[714
286]

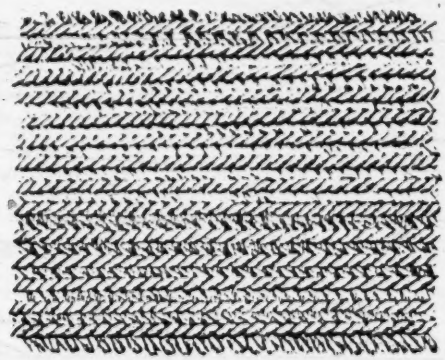

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Fig. 37. Enlarged detail of mail shirt, fig. 36. Natural size.

It is worthy of note that the Choroti also manufacture another protective garment out of caraguatá, namely a sort of stockings. This footgear is put on for wading (in fishing), as a protection against the teeth of the terribly sharp-biting palometa fish.[1]

To protect the legs from spiny plants, I have seen Choroti using a kind of long deerskin leggings, laced on with leather straps. The legging here reproduced in fig. 38, which has a height of 71 cm, reached well above the knee of its wearer. Some of the Choroti make use of sandals,[2] but I have myself never seen them worn by these Indians.

The men generally wear their hair of a medium length i. e., down to the shoulders, or the shoulder blades (figs. 16—18, 39 and 83) — but I have also seen Choroti with hair so long as almost to reach the waist. The hair is usually tied round with a woollen frontlet (fig. 39), or a frontlet of palm leaves (fig. 24), or birdskin (fig. 17), but it may also be worn loosely hanging down (fig. 53). Frequently the hair is tied into a brush-like bunch at the nape of the neck (fig. 39). Woollen frontlets are generally furnished with simple, tasteful, ornamentation (figs. 30

[1] Nordenskiöld (13), p. 110.
[2] Nordenskiöld (11), pp. 113, 114.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

727 and this miniature pyre was set alight. The flames only rising upwards, the fire and the glowing cinders would only very slowly burn through the skin and into the stomach. It is difficult to imagine a more cruel method of torture.

721 Many of the wars waged between so-called civilized nations have owed their origin to greed of the wealth that nature produces, and among the Indians, wars may be due to the same cause. In the case of primitive

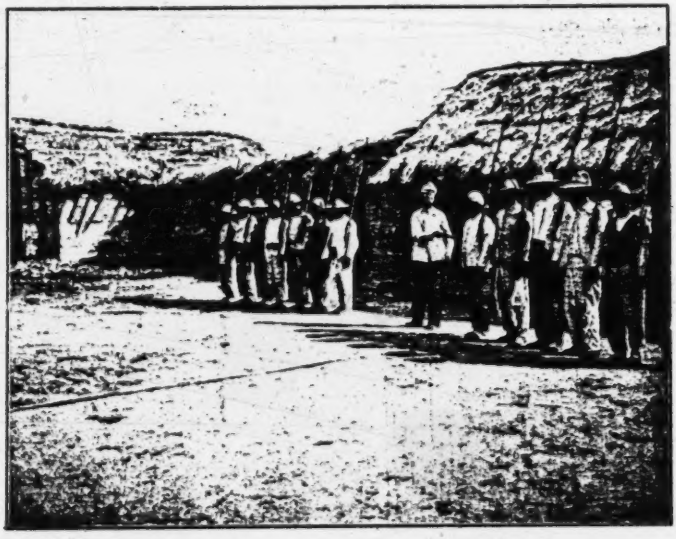

Fig. 112. Fort Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

peoples, wars are perhaps mostly a competitive struggle for food, and we may take it for granted that the fights that have taken place between the tribes on the Pilcomayo have been over the fishing in that river, so very important a matter to the Indians. It is partly for this reason, and partly because war is a hunting of human beings, that I have dealt with the war methods, and the war weapons, of the Choroti in this chapter on their means of subsistence.

● 226 Owing to the circumstance that the part of the Choroti tribe among which I was carrying on my studies, at the time of my stay with them,

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

had their dwellings far from any fishing water, I myself never saw these Indians engaging in fishing. As they had, however, brought with them their fishing gear (except the frameworks of their landing-nets), I succeeded in making a good collection of this kind of implement. 226

The Choroti fish with nets (using them as landing-nets), fish-hooks, and with bow and arrow. The last-mentioned fishing method, which, as far as I know, has only been observed by Moberg a Swede, is, however, only used during the latter part of the rainy season.[1]

The nets are either fastened so as to fill up the angle between two rigid poles, which are tied together by their lower ends (fig. 113), or between two supple rods, tied together at both ends (fig 114). The angle-set poles, and the rods, seem as a rule to be about 3 m in length. These fork poles and rods (dip-net frames) the Choroti had not troubled to bring with them to their dwelling site — far removed from any fishing water — in the neighbourhood of Tatarenda, and therefore my description of these implements is founded on two specimens preserved in the Gothenburg Museum, and on such photographs[2] and information as Nordenskiöld has kindly given me.[3]

When fishing, the Indians often split up into two parties, one of whom make a bar across the river with the nets that are stretched between poles (the barring-nets), which are then held so that the points of the fork rest on the bottom of the river. The other party of fishermen drives the fish towards the barring-nets, at the same time using their nets that are fixed between two rods (dip-nets) for catching fish.[4] These latter nets are used like large landing-nets, and, by means of the flexible rods, can be opened and closed. The Choroti have no water craft of any kind (not even rafts), but do their fishing swimming or wading. When fish is scarce, the Choroti block up the Pilcomayo with pole-built fences that, here and there, have openings in them. In front of these, the Indians sit on small platforms (figs. 114 and 115), and fish with dip-nets. When the weather is cold, or when fish is to be fried, fire is made on the platforms, which are isolated from the fire by means of a layer of river mud.[5] These 501 481 343 226

[1] Nordenskiöld (11), pp. 60.
[2] Nordenskiöld (13), fig. 8, 11 ß, plate 14', and Karsten (2), the figure on p. 34.
[3] Letter dated 14. 7. 1931, Rockefeller collection of manuscripts, volume 1931, letter N.
[4] Nordenskiöld (13), p. 43.
[5] Nordenskiöld (13), p. 44.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK
Ashluslay SK

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● 226
343

A
[226
227]

Fig. 113. Ashluslay fishermen with barring nets. Pilcomayo. Gran Chaco, Bolivia. Sketched from a photograph by Erl. Nordenskiöld.

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little water platforms are constructed in about the same way as the food-storing platforms, or cooking sheds, that the Choroti build on dry ground (see p. 38). The only difference is that the two horizontally placed sticks that support the platform (the roof) in the latter, are resting in natural forks formed by the top ends of the uprights (see fig. 28), whilst the two sticks that support the platforms (the floor) of the river structures rest against bindings which have been tied round two uprights driven in close together. This arrangement almost certainly aims at the possibility of raising or lowering the platform in accordance with the level of the river water. In all other respects there is very great resemblance between the platforms that are built in rivers (fig. 115) and the cooking sheds built on dry land (fig. 28). In chapter VII I have tried to show how pile structures on firm ground have inspired the idea of building similar structures in water (see pp. 192—199 and 38—47).

The Choroti are so much at home in the water that they are able, whilst swimming below the surface, to catch fish with their dip-nets.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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343

Fig. 114. Pole-built fish fence across the Pilcomayo, with openings at intervals. On a platform in front of one of the openings a Choroti Indian is sitting, fishing with a dip-net. Gran Chaco, Bolivia. Sketched from a photograph by Erl. Nordenskiöld.

227

In figs. 116 and 117 is shown a bar net of caraguatá yarn. When I, by barter, acquired this net, for the reasons already given it was not mounted on its frame, but was kept rolled up, and with its mouth drawn together (see figure), in order to take up as little room as possible. The size of the net shows that it could be extended, in a triangular shape, between the arms — about 3 m long — of a fork (see fig. 113). The yarn of which the net is made is two-ply, and has a diameter of about 1.5 mm. The meshes are square, with sides of 4 cm.

In my collection there are also nets with meshes whose sides are, respectively, 2.6 and 1.6 cm. But the Choroti have probably nets with still smaller meshes, for I have in my collection a mesh-spacer which is only 1.1 cm wide.[1] Nets that are as small-meshed as this, are suitable for catching bait for fishing with hook and line.

Fig. 115. Detail sketch of a platform of the kind seen in fig. 114. From Erl. Nordenskiöld.

The largest mesh-spacer in my collection is very nearly 4 cm wide (fig. 118), and would therefore have been used for the weaving of nets

[1] Riksm. 03. 3. 241.

227 of the kind reproduced in figs. 116 and 117. The mesh-spacers are made of some hard, heavy wood, and usually very smoothly polished.

226 As I have said before, the Choroti also fish with hook and line, although this method of fishing is not by far as common as fishing with nets. In fig. 119 I have reproduced a fish-hook and line. The fish-hook has been made by the Choroti themselves from some awl-like tool acquired in

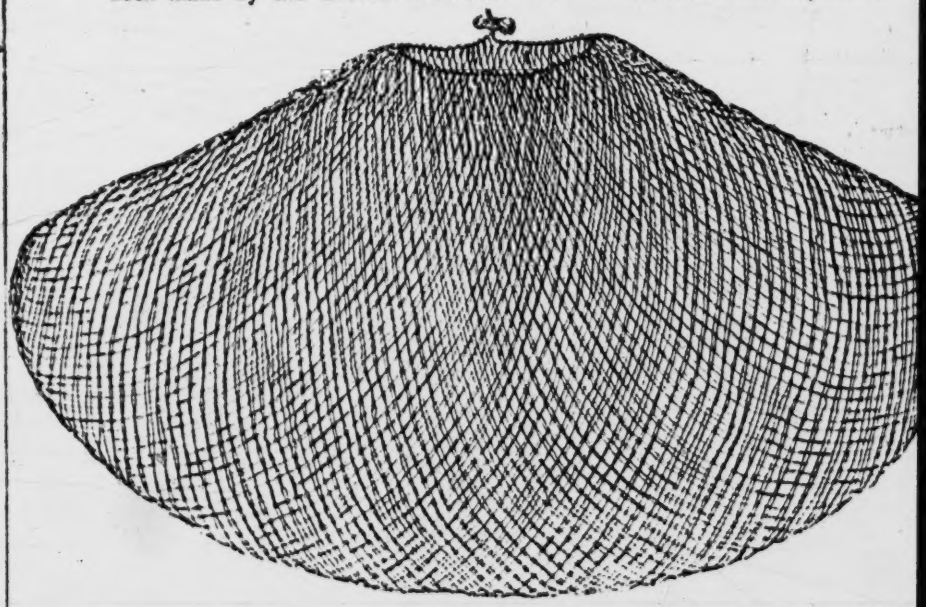


Fig. 116. Net made of caraguatá fibre yarn, for extending in a triangular shape in the way seen in fig. 112. It is here shown with its mouth drawn together, by means of a string running along its edge, so as to be more easily rolled up for transport. The meshes are quadratic, with sides 4 cm long (see fig. 117). The yarn, which is two-ply, has a diameter of about 1.5 mm. Choroti. Gran Chaco. Bolivia. 1/10. Riksm. 03. 3. 237.

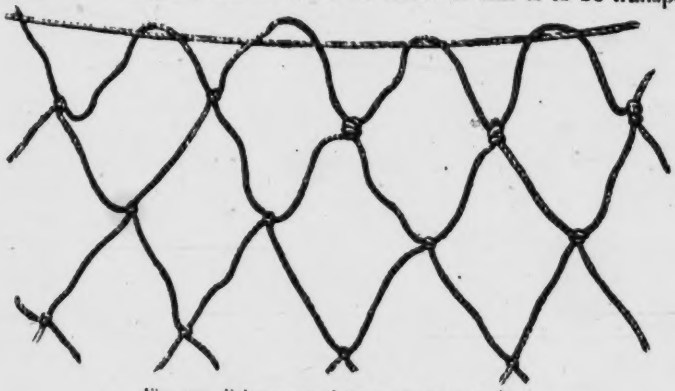
some way or other from the whites. Formerly the Choroti probably used fish-hooks of bone or hard wood. Such hooks are still being used by the Lengua.[1] The line, which consists of caraguatá, is not threaded through any eye, or tied to any notches in the top of the shank of the hook, but is laid straight along the upper part of the hook, and fastened by winding on it a thinner caraguatá string. At the lower part of the hook, a caraguatá

[1] Grubb (1), p. 84.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

thread is wound on and fastened. Probably this thread,[1] was used for securing the bait so that it should not slip off the barbless hook. The line, which consists of three-ply yarn, is 4.4 m. long. [226]

When a fish has been caught, it is killed with small, round-sectioned clubs of some hard and heavy kind of wood (fig. 120), and then strung on a cord, which, by means of a wooden needle (fig. 121), is threaded through the head of the fish, being passed through its eyes. The fish-festooned cord is carried round the fisherman's waist. This is a safe and handy way of carrying the catch whilst continuing fishing operations, swimming or wading. When a collected catch of fish is to be transported



[286]

Fig. 117. Enlargement of the net in fig. 116. 2/3.

home to the village, the fish needle and cord also come in very useful. The implement here shown is from the Toba, as the Choroti specimen which I brought home (Riksm. 03. 3. 243) is now lost. The needle in the implement here reproduced probably consists of palo mataco, or quebracho, and has a length of 380 cm and a diameter of 0.5 cm. The cord, however, tapers towards the ends, its extreme points being only a few millimetres in thickness. One end of the cord is bent back so as to form a loop. Through this loop, and through the eye of the needle, a thinner caraguatá string has been passed, several turns, and with this string the loop has been wound, in the way seen in the picture. The specimen here shown is meant for carrying large-sized fish, but these implements are also to be found of much slenderer dimensions. [324] [283]

[1] I have no notes concerning the purpose of this thread.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

Toba and the Tapiete, as well as among the tribes mentioned above. MAX SCHMIDT[1]) mentions these clubs from the Guató. Formerly they were also used by the Mbayá[2]). I have put the club among the cultural elements characteristic of the Chaco. The *wooden needle with the line* for pulling up fish is also specially characteristic of the Chaco. Apart from the tribes here dealt with, I have seen such needles among the Toba, Mataco and Chiriguano. HAWTREY also mentions them from the Lengua.[3]) I have not seen them mentioned in books about any tribe outside the Chaco.

The *baskets* mentioned above are also found, besides among the Ashluslay, among the Lengua[4]) and the Cayubaba[5]). I have seen them myself among the last-named tribe.

I have myself seen *fishing with the bow and arrow* and know it to be practised among the following tribes: Atsahuaca, Chacobo, Cháma, Chimáne, Chiriguano, Churápa, Guarayú (in the Mission), Guarayú (Pauserna) Huanyam, Huari, Mosetene, Tambopata-Guarayo, Vamiaca and Vuracáre.

This sort of fishing is widely extended in S. America.

The Choroti and Ashluslay have no multi-pointed fishing arrows, and no harpoon arrows.

There is a curious *river damming contrivance* in use among the Choroti, Ashluslay and Mataco during the dry season, which I have not seen elsewhere, and which I have not found mentioned in the books I have consulted. I have described it in »Indianerleben«[6]) so that it seems unnecessary to repeat it here.

[1]) p. 311.
[2]) SÁNCHEZ LABRADOR, Vol. I. p. 333.
[3]) p. 287.
[4]) GRUBB, p. 81 and fig. p. 241.
[5]) KELLER-LEUZINGER, p. 72; see also NORDENSKIÖLD (6) fig. 59.
[6]) p. 48.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
Choroti SK 6

M 241 seldom allows them to reach maturity. Besides the drought, birds, ants, locusts and rats often destroy the crops. The same fruits and cereals are cultivated by the Mataco and the Tobas in Bolivia, maize and manioc however with greater success than among the Choroti, since the climate there is more favourable. On the whole, the Chaco tribes are greatly dependent for their subsistence on the crops nature spontaneously gives them, and the great rôle that wild fruits like the algaroba, the chañar, the tusca, and a few others play in the economic life of these Indians has already been mentioned. It is mainly owing to these useful trees that the interior parts of the Chaco are habitable for people living in a state of nature.

T 241 184 434 The Bolivian Tobas, although they cultivate maize on a small scale, still get their main supply of this important cereal from the Avas in the north, with whom they carry on a sort of trade. Generally they get the maize in exchange for dried fish, which they store in considerable quantities during the summer season.

M T C 226 Fishing is the main occupation of the tribes living on the River Pilcomayo, and these Indians are therefore never seriously threatened by starvation. During the rainy season, when the river is swollen, fishing is often impossible; the proper season begins in April or May when the water is low and fish appear in abundance along the banks of the river. All Pilcomayo tribes use nets made of *caraguatá* fibres and of a peculiar triangular form, and since they have no canoes or vessels of any kind they always catch the fish by swimming and diving, in which they display remarkable skill. The Tobas, who are particularly skilled fishermen, use not only nets, but also, and I believe more commonly, bow and arrows, a method only occasionally practised by the Choroti and the Mataco. When the Indians have caught a fish they instantly kill it with a small club of palo santo if it is a large one, if it is of a smaller kind simply by biting the head.

T 251 438 During a big fishing expedition the Indians, at any rate the Tobas, sometimes catch fish in enormous quantities. They preserve them by roasting, then store them in special shelters, formed of a roof made of reeds and palm-leaves resting on four poles. This dried fish forms an important article of exchange among the Tobas.

M T C 224 Next to fishing, hunting is the most important means of subsistence of the Chaco Indians, but in this respect also the Choroti and Mataco are inferior to the Tobas. Especially the Choroti seemed to me to be poor hunters. In the parts of the Chaco inhabited by these Indians game is scarce, and with their comparatively small bows and arrows they only

2: Karsten E-5 (1911-1913)1932 SI7 Mataco
Toba SI 12
Choroti SK 6

C
226

Choroti Indians fishing in the Pilcomayo.
An old man, wading in the river and beating the water with a stick, is driving the fish towards the fishermen, who stand ready to catch them with their nets.

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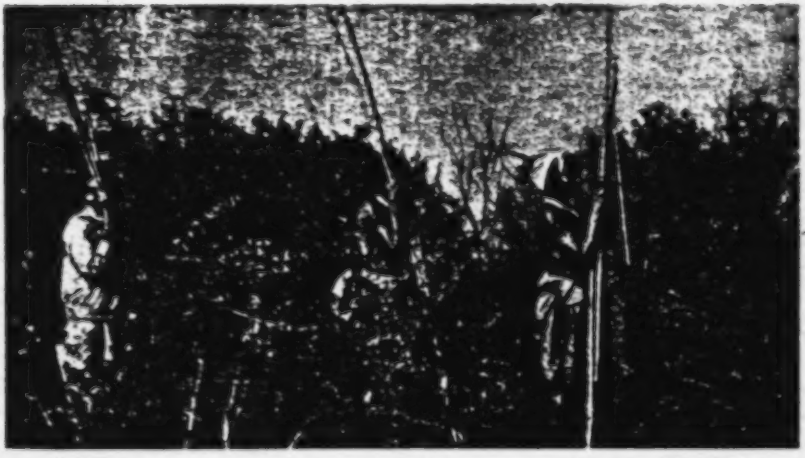

Photo W. Hansson.

Young Toba Indians, armed with bows and arrows, hurting in the forest.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

Indian tribe. For myself I have regarded them mainly from the point of view of the ethnologist and social psychologist, and cannot help holding a somewhat different opinion on the subject. The state of things which Mr. Grubb found among the Lenguas, it should be noted, is in the main the same as among all Chaco tribes. Mr. Grubb disregards the fact that what he calls Indian socialism, with the solidarity and social sympathy which it involves, is not accidental but the natural outcome of evolution and the circumstances under which the Chaco Indians have lived for centuries. It is not only a natural system but also a useful system, having been developed according to the Darwinian law that in a hard struggle for existence such societies have the best chance to survive in which the sympathetic feelings are strongest. In fact, nowhere is mutual aid more necessary than among the half-nomadic Chaco tribes, who are able to practise agriculture only to a small extent and who, as pointed out before, at certain times of the year have to struggle hard to support life. Lacking these social feelings, I believe, many of the smaller tribes, for instance the Choroti, would have perished long ago. Besides, the very history of the Chaco Indians proves that they have been driven into these inhospitable regions by forces over which they had no control, the most important being the pressure of superior peoples. Pressed from behind and meeting resistance from those already occupying these lands they were compelled to fight for their very existence. These facts of the historic past of the Chaco Indians account for the warlike character of many of them, but also for their strong social instincts.

Social sympathy is developed strongest among low tribes such as the Choroti and Ashluslay, but also manifests itself among the Tobas and the Mataco. What Mr. Grubb says with special reference to the Lenguas, that »the apparent hospitality is given grudgingly, though ostensibly with a good grace», does not at any rate hold true of the *Choroti*. I have mentioned before that bargaining in every form is unknown to the Choroti, and this is due simply to the fact that they regard themselves as being socially so intimately united that property and the products of labour are practically common to all. When a party of Choroti men return from fishing they always distribute the catch in the village so that every family has its share, and if one asks a Choroti why he does so, his only answer is generally: *etsini*, *i.e.* »they are my brothers». »We are all brothers», is the principal tenet of their social morality. There is an unwritten native law which states that no single family or individual shall suffer want as long as there are others who possess food. This system is looked

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

226
343

Fig. 114. Pole-built fish fence across the Pilcomayo, with openings at intervals. On a platform in front of one of the openings a Choroti Indian is sitting, fishing with a dip-net. Gran Chaco, Bolivia. Sketched from a photograph by Erl. Nordenskiöld.

In figs. 116 and 117 is shown a bar net of caraguatá yarn. When I, by barter, acquired this net, for the reasons already given it was not mounted on its frame, but was kept rolled up, and with its mouth drawn together (see figure), in order to take up as little room as possible. The size of the net shows that it could be extended, in a triangular shape, between the arms — about 3 m long — of a fork (see fig. 113). The yarn of which the net is made is two-ply, and has a diameter of about 1.5 mm. The meshes are square, with sides of 4 cm. 227

In my collection there are also nets with meshes whose sides are, respectively, 2.6 and 1.6 cm. But the Choroti have probably nets with still smaller meshes, for I have in my collection a mesh-spacer which is only 1.1 cm wide.[1] Nets that are as small-meshed as this, are suitable for catching bait for fishing with hook and line.

Fig. 115. Detail sketch of a platform of the kind seen in fig. 114. From Erl. Nordenskiöld.

The largest mesh-spacer in my collection is very nearly 4 cm wide (fig. 118), and would therefore have been used for the weaving of nets

[1] Ethnos. 03. 3. 241.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

227 of the kind reproduced in figs. 116 and 117. The mesh-spacers are made of some hard, heavy wood, and usually very smoothly polished.

226 As I have said before, the Choroti also fish with hook and line, although this method of fishing is not by far as common as fishing with nets. In fig. 119 I have reproduced a fish-hook and line. The fish-hook has been made by the Choroti themselves from some awl-like tool acquired in

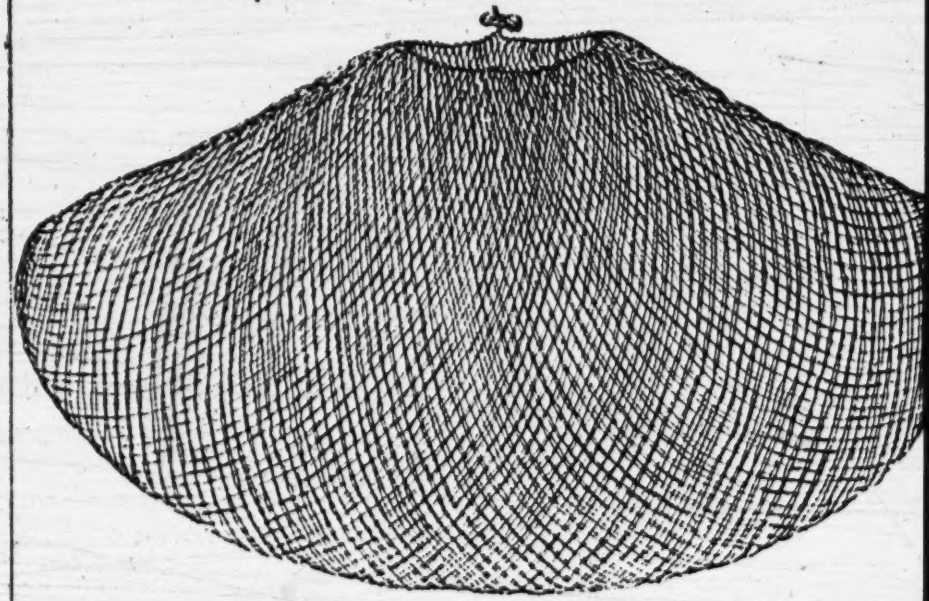

Fig. 116. Net made of caraguatá fibre yarn, for extending in a triangular shape in the way seen in fig. 112. It is here shown with its mouth drawn together, by means of a string running along its edge, so as to be more easily rolled up for transport. The meshes are quadratic, with sides 4 cm long (see fig. 117). The yarn, which is two-ply, has a diameter of about 1.0 mm. Choroti. Gran Chaco. Bolivia. 1/10. Riksm. 03. 3. 337.

some way or other from the whites. Formerly the Choroti probably used fish-hooks of bone or hard wood. Such hooks are still being used by the Lengua.[1] The line, which consists of caraguatá, is not threaded through any eye, or tied to any notches in the top of the shank of the hook, but is laid straight along the upper part of the hook, and fastened by winding on it a thinner caraguatá string. At the lower part of the hook, a caraguatá

[1] Grubb (1), p. 81.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

136 I have mentioned that the Choroti do not possess any water-craft, so
481 that when fishing with nets they often have to wade or swim. In doing
292 this, they expose themselves to being attacked by palometa fishes. As a protection for their legs in wading, the Indians occasionally wear a kind of mail stockings of caraguatá (see p. 54), but when they are swimming, they often get badly mauled by these fierce fishes, and I saw several Choroti with enormous scars from the bites of palometas (fig. 53). It also happens, now and again, that Indians, whem swimming, get killed by caymans, which, here and there, are plentiful.

[286 824]

Fig. 118. Mesh-spacer of palo santo (Bulnesia sarmienti). Length 14.0 cm, width 3.8 cm; thickness along longitudinal axis 0.8 cm. The thickness decreases towards the longer edges, which are rounded. Choroti. Gran Chaco. Bolivia. Riksm. 03. 3. 242.

222 In the collection of the fruits, roots and pith of wild plants the Choroti possess an important source of subsistence. The Chaco Indians obtain edible fruits from, inter alia, the algaroba (Prosopis alba), the chañar (Gourliea decortitans), the mistol (Zizyphus mistol) and the tusca (Acacia aroma). The rootstocks of the caraguatá, or chahuar (Bromelia serra), plant are used for food by these Indians, and the same applies to the pith of the fan palm (Copernicia australis). For pulling down within reach the fruit-bearing branches of trees, the Indians make use of wooden hooks with a short arm and a long one, the latter then serving as a handle, whilst the tree branch which is to be bent down, is hooked with the shorter arm of the implement.[1] In digging up the spiny caraguatá plants the Choroti use a forked stick.[2]

[227]

241

Fig. 119. Fishing hook of iron, with line of caraguatá fibre. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 238.

Fig. 120. Fish club of palo santo (Handle upwards). Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 87.

At the time of my stay among the Choroti, the part of the tribe with whom I was in touch carried on no other agriculture than the growing of pumpkins in a primi-

[1] Nordenskiöld (11), fig. 3.
[2] Nordenskiöld (13), fig. 49.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6
Toba 5112

C 241

tive fashion, and, according to Nordenskiöld and Karsten, such agriculture as the Choroti engage in, is still on a very inconsiderable scale. Nowadays, however, these Indians cultivate — although not to any great extent — the following plants, viz.: pumpkins, cucumbers, water melons, maize, beans, manioc, sweet potatoes, tobacco and cotton.[1] Their only agricultural implements consist of digging-sticks of hard, heavy wood, and a kind of paddle-like, wooden spades. A typical digging-stick is reproduced in fig. 27.

C T [227]

It is probable that the Choroti originally had no other domestic animals than dogs, and the only tame animals I personally saw among this tribe were dogs and fowls. Those of the Choroti Indians who are living in the neighbourhood of the Pilcomayo possess, beside the animals mentioned, also sheep, goats, cattle, horses and cats. Sheep-rearing has now come to be of great importance to the Indians, who use the wool as material for mantles, fillets, etc.

C 231

C 361 166

Fig. 121. Cord on which fish are strung by means of a large needle of hard, heavy wood. This kind of carrying-gear is very common among the Choroti. The specimen here reproduced originates, however, from the Toba (neighbours of the Choroti). Gran Chaco. Bolivia. $^{1}/_{6}$. Riksm. 03. 3. 766.

As mentioned, the Choroti are a nomadic people. Their changes of location may be due to various circumstances. When pasture is exhausted in one place, they must look about for another; they move on to more profitable fishing-waters, or wander into regions that are rich in game and wild, edible plants. But there may also be other, and quite different, reasons for the Choroti's leaving their old abodes. In epidemics, when deaths are plentiful, it happens that the Choroti abandon their villages, and this they may also occasionally do if they are apprehensive of visits from whites (see pp. 47 and 48). In a first-rate monograph, Dr. Ragnar Numelin has exhaustively analyzed the causes governing the nomadic instinct in primitive peoples. As re-

C [731]

[1] Nordenskiöld (11), p. 29.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

IX.

Fishing-tackle.

The tackle used by the Choroti and Ashluslay is of two kinds of nets, as well as the bow and arrow[1]) The Ashluslay have also a species of basket which they place over the fish they catch in swamps. As far as I know, catching fish by means of poison is not in vogue. Angling hooks of Indian manufacture I have not come across, and European hooks are not popular as objects of barter among the Choroti and Ashluslay. To net fishing belong clubs, with which the fish are killed, and wooden needles with line of the same material to draw up the captured fish. The *nets*[2]) used by the Choroti and Ashluslay I have seen employed by the Chiriguano, Chané, Toba and Tapiete, but by no other tribes that I got to know on my travels. Nets like the dip net are known to me from books, but only among the Lengua[3]) and from the N.W. of Brazil.[4]) I therefore count the net among the cultural elements with whose distribution I am imperfectly acquainted. Small, short *clubs*, only used in killing fish, were seen by me among the Matacо, the

[1]) In my book »Indianerleben» I wrote that the Choroti and Ashluslay do not employ the bow and arrow for killing fish. This is incorrect, as Mr Carl Monkau informs me. They employ this method of fishing during the latter part of the rainy season, when I was not among these Indians.

[2]) See »Indianerleben» fig. 11 a, Pl. 14 and fig. 73.

[3]) Grubb, p. 81.

[4]) Koch-Grünberg (3) Vol. 3, fig. 11.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

291 occurrence. I was, however, told that, in olden days they were in general use among the men. Fringed leather belts of the same kind as the one [171] here shown, are still common among the Lengua in the eastern Chaco.[1] Belts and girdles are fastened round the waist by means of a thin leather strap, passed through, and tied to, two holes at one end of the belt. The two free ends of the strap are threaded through two corresponding holes in the other end of the belt (see fig. 31); are tightened up as required, and tied. In the same way the Choroti fasten their fringe-less leather belts (fig. 171), which are usually made of white oxhide, and serve to secure mantles and skirts round the waist (see fig. 30: the man farthest to the left). The Choroti also wear broad, fringe-less belts of oxhide as a protection for the stomach from arrow shots.[2]

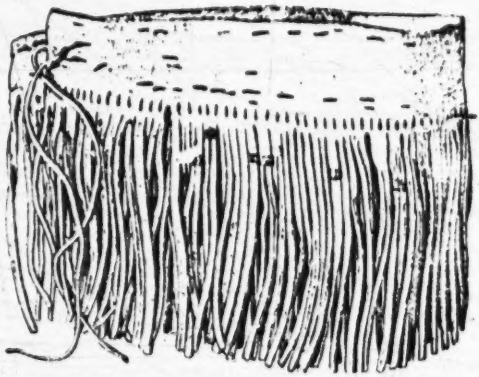

Fig. 31. Fringed leather belt. Mountings of tinplate decorating some of the fringes. Choroti. Gran Chaco. Bolivia. 2/9. Riksm. 03. 3. 8.

Very common garments are large woollen mantles, which the men either wrap round the waist (figs. 17, 30, the two men on either flank), or drape over the shoulders (fig. [231] 32). The Choroti women weave these mantles of the wool from the 286 flocks of sheep that the tribe owns in the interior of the Chaco. The 291 mantles are usually in two colours, and woven with groups of stripes. I have reproduced, in fig. 33, a corner of a Choroti man's mantle, the size of the mantle being 204 by 183 cm. The fabric, so-called rep, consists of two-thread, tightly spun yarn of a greyish white (the natural colour of the wool) and reddish brown; the warp is rounded, so that the weaving is selvedged all round. The woof is red. The ground colour of the mantle is brownish red, and there are six groups of greyish white stripes running with the length of the mantle. Each group of stripes consists of one broad, greyish white stripe, with two thinner stripes of

[1] Grubb (1).

[2] Cf. Nordenskiöld (13), plate 13.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6
Toba SI12

tive fashion, and, according to Nordenskiöld and Karsten, such agriculture as the Choroti engage in, is still on a very inconsiderable scale. Nowadays, however, these Indians cultivate — although not to any great extent — the following plants, viz.: pumpkins, cucumbers, water melons, maize, beans, manioc, sweet potatoes, tobacco and cotton.[1] Their only agricultural implements consist of digging-sticks of hard, heavy wood, and a kind of paddle-like, wooden spades. A typical digging-stick is reproduced in fig. 27.

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[1] Nordenskiöld (11), p. 29.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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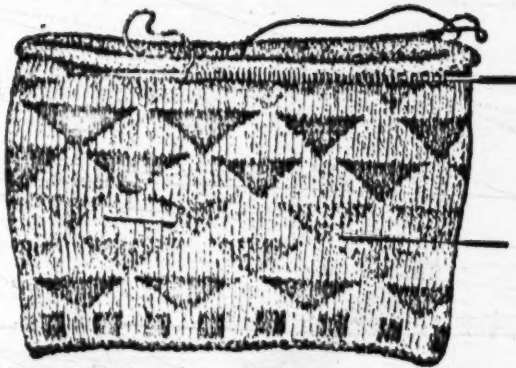

Fig. 141. Bag (unfinished), knitted of woollen yarn, with two cactus spines used as knitting needles. The pattern consists of red, brown and grey triangles and squares on a greyish white ground. Choroti. Gran Chaco, Bolivia. 1/3. Riksm. 03. 3. 143.

Fig. 142. Distaff, with wooden spindle and a spherical whorl consisting of the hard shell of a fruit. Left-spun cotton yarn is wound on the spindle, near its middle. Choroti. Gran Chaco, Bolivia. 1/3. Riksm. 10. 3. 51.

Fig. 143. Distaff, with wooden spindle, and a plano-convex whorl of bone. Choroti. Gran Chaco, Bolivia. 1/3. Riksm. 03. 3. 140.

triangles and squares on greyish-white ground. It is probable that the Choroti have learnt the art of knitting through having been in contact with more cultured tribes.

283
[231]

From their herds of sheep the Choroti obtain all the wool they need for manufacturing mantles, loin cloths, ponchos, fillets, bags, etc. Wool, as well as cotton, is spun with distaffs of the Bakairi type[1] (figs. 142 and 143). The spindles of the distaffs are of wood, with a small knob at the top end for fixing the wool. The spindle is always thinnest at the upper end, and increases in thickness downwards, attaining its greatest thickness not far from its bottom end. The spindle whorls consist of various materials, such as fruit rinds, bone, earthenware, etc. I have even obtained a Choroti distaff with a stone whorl (Riksm. 10. 3. 50), although this is a material which is extremely rare on the

[1] For South American spinning implements and their classification see Frodin and Nordenskiöld (1). 10[3]. — *v. Rosen.* II.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

X.

Domestic Animals and Objects connected with them.

A C 231

The Choroti and the Ashluslay keep dogs, horses, cows, sheep, goats, fowls and cats. Of these the *dog* is the only native domestic animal. The dog is very widely distributed in America. In many cases it is difficult to decide to what extent he has spread beyond his original domain in post-Columbian times. I do not know whether the Chaco dog has been crossed with dogs of European breeds, but in any case he has a very characteristic appearance, and is worth studying by a specialist.

We know that the Indians of the Argentine pampas and of the Chaco Austral became real equestrians soon after the Discovery of America. Their whole life was changed and adopted to the horse.

A C [481 492]

The Ashluslay and some of the Choroti also have horses, and *breed horses*. But they are not equestrians, and usually go on foot. Owing to the introduction of horses, they have adopted this and the other accessory to a horseman's equipment, among other things, curious *spurs* of forked wood. (Fig. 11).

The Ashluslay Indians have numerous cows and sheep, and a smaller number of goats. Among the Choroti we find sheep and goats, and few cows. When the cows are killed, their flesh is used; but this may be said to happen rarely.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

The wool of the sheep is turned to account. Sheep and goats are sometimes killed.

Cow horns are used as tinder-boxes, spoons and occasionally trumpets.

Little enclosures are sometimes built for the sheep and goats.

Goat horns are also turned into spoons.

Fig. 11. Wooden Spur.
Ashluslay. G. M. (A. 107) 1/2.

Mataco SI7
Choroti SK6

M /320 cont./

771 They have a vague idea of superior beings, whom they fear
776 without worshiping them; the cleverest one becomes the sorcerer
756 and exploits the poverty of his companions, especially today when
648 they are earning money from the whites, to whom they lend im-
464 portant services.

M They frequently move from the region that they occupy to
169 the Argentine Republic; they work, dress, learn some Spanish
177 and a slight smattering of civilization, and return to their lands to live as before.

Choroti

Ci
131 The zone located southeast of Toba territory is occupied
197 by the Choroti Indians, who have their own language. They occupy the geographic degree 22° 30' latitude and 64° 10' longitude, on the left bank of the Pilcomayo River.

Ci They are quite numerous and peaceful, and they are not
181 treacherous like their neighbors, the Toba. Nevertheless, they
648 inspire respect in all the neighboring tribes; if a mission were to be established at said degree, the conquest of all the Bolivian territory /321/ up to 24° would be accomplished without the need of so many small forts, which are such a great expense to the Nation and which do not create centers of trade and civilization.

Ci Father Gianelli in years past visited the Choroti Indians,
797 was received with displays of affection and appreciation, and
177 found among them good inclinations toward becoming civilized, but at that time the harvest was too much for so few evangelical workers.

Ci The Choroti are not so lazy and savage as the other tribes;
181 they devote themselves to the cultivation of a few seeds and to
241 the raising of cattle, although on a small scale. They are also
231 hunters, however, and when they occupy the banks of the
224 Pilcomayo, they take advantage of the fruits the river brings them, especially in the great floods.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI/2
Choroti SK6

M T C 224 C [262]

rarely succeed in killing a tapir, a deer, or a wild pig. Besides, the deer is an animal of which the Choroti have a superstitious fear, and its flesh is never eaten by them; when they kill one, they only keep the hoofs, which are used as magical rattles, the leg-bones, of which instruments used for ceremonial blood-letting are made, and the skin which is used for different purposes. Of birds, as I have stated before, the ostrich is especially appreciated both on account of its flesh and its plumes, which play a great role as personal ornaments and to which magical power is ascribed. In hunting the ostrich the Choroti, like other Chaco tribes, avail themselves of the trick of binding palm leaves together and placing them on the head and shoulders so as to resemble a young tree. Disguised in this way, the Indians generally succeed in getting within easy range of the shy bird, and are thus able to bring it down with their arrows. Another trick of which the Indians often make use in hunting is that of imitating the cry of certan animals and birds by means of round wooden whistles, particularly invented for this purpose. With the same whistles, which are supposed to possess magic power, they also imitate the supposed whistling sound of the spirits, which are thereby frightened away.

T 224

The Tobas are much more skilled hunters than the Choroti and the Mataco, and, at least in Bolivia, the country inhabited by these Indians is comparatively rich in game. Thus tapirs, deer, and wild pigs, of which latter there are two varieties, are frequent in the forests, and the Tobas hunt them eagerly, using bows and arrows as well as lances as weapons. All Indians, and particularly the Tobas, are expert in stalking ainmals; the latter are thereby aided by their dogs which are specially trained for the hunting of the wild pig. Even the jaguar and the puma are hunted by the Tobas with dogs.

M T C 231

Of domestic animals the Chaco Indians keep dogs, sheep and goats as well as fowls. [1] Horses were long ago introduced among the Tobas who

[1] Nordenskiöld, when treating of the domestic animals of the Bolivian Indians in his *Ethnography of South America seen from Mojos in Bolivia*, p. 114, amongst other things mentions that in Mojos only the civilized Indians keep cattle, which have been introduced by the whites, and adds the following erroneous statements as regards the Chaco Indians: »In the Chaco, on the other hand, *even the independent Indians have cattle* which play an important part for them. *The Indians keep no sheep or goats*». I wish to point out that neither the Tobas nor the Choroti, nor the Mataco on the Pilcomayo keep cattle. On the other hand, sheep and goats are kept by *all* Pilcomayo tribes and, as far as I know, by all other Chaco Indians, except perhaps some savage tribes in the interior of the unknown Chaco.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
Choroti SK 6

soon became skilled riders, but among the other Pilcomayo tribes they are rare. Before the Chaco Indian became acquainted with the white man, the dog was the only domestic animal known to him. These half-starved, fierce, and treacherous dogs are a real nuisance in the Mataco and the Choroti villages to the white traveller who has to stay among the Indians, because in their hunger they are always on the alert to rob him of edible things, among which they include not only his provisions, but also his saddlegear, boots, and other leather goods. Although the Mataco and the Choroti treat their numerous dogs badly and evidently have little use for them even as watches, yet in a way they regard them as members of the tribe. They never kill a dog, however old and wretched it may be, and when it dies they lament over it just as they lament over a fellow-tribesman. This curious practice is due to superstitious reasons, fear of the spirit of the dog. Like many other South American Indians, the natives of the Chaco believe that the souls of their dead tribesmen may reincarnate themselves in the dogs.

Only the Tobas, who are culturally superior to the rest of the Pilcomayo tribes, feed their dogs properly and have real use for them both in hunting and as watchdogs. But even these dogs are of uncertain breed and by nature so savage that for my own part I failed in my attempts to train them according to European methods.

These general remarks on the material culture of the Pilcomayo tribes may suffice as a basis for the following description of their social customs and their intellectual culture. I shall repeatedly have occasion to touch upon the ergology of the Indians in describing their magical ornaments and amulets, as well as various objects used at religious ceremonies.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI2
Choroti SK6

eating of fish at the beginning of the wet season is likely to cause malarial fever. What is particularly dangerous in the fish, as the Indians told me, is the stomach; an evil spirit may hide in it. Therefore a person must abstain from eating this kind of food when he or she is in a delicate condition and exposed to the attacks of supernatural enemies. After a death it is the death-demon that is believed to have possibly taken up its abode in the stomach of the fish. In general, the rules of diet, both in regard to fish and in regard to other kinds of food, are always more strict for the women than for the men, and this is naturally due to the belief that the former have by nature less power of resistance against evil spirits than the latter.

Several other food restrictions exist among the Chaco tribes, and most of them are due to superstitious ideas of one kind or another. Just as the Choroti shun the meat of the deer, so I found among the Toba men an aversion to the meat of the wild pig, although this is a very tasty food. This may possibly be due to the idea that the wild pig is a »female» animal, as is also the armadillo. At any rate the Tobas have the belief that the souls of women particularly reincarnate themselves in the wild pig. All Chaco Indians likewise have an aversion to drinking the blood or milk of animals and eating the eggs of hens and of other birds. The Indians could give me no explanation as to this superstition, and it is possible that the original reasons for it are now forgotten. It is, however, highly probable that they shun blood and milk because they believe that the spirit or soul of the animal is in them. This is at any rate quite obvious with regard to blood, which plays an important part in native superstition. Thus among all tribes there appears a mysterious dread of shedding the blood of domestic animals. The Choroti for instance, when they have to slaughter a sheep or goat, never kill the animal by cutting its throat or shedding its blood in some other way, but always, according to old observance, by strangulation. The custom is professedly observed for fear of coming in contact with the blood of the animal. — For a similar reason, I believe, the Indians have originally abstained from eating eggs. The egg is the embryo of the bird, and in the embryo or foetus of an animal, according to primitive belief, its spirit has its abode in the same way as in its blood or milk. It is interesting in this connection to note what Mr. Grubb says of the analogous ideas of the Lenguas. »Milk, whether of the cow, goat, sheep, or mare, is never drunk. The older people seem to consider it unfit for them, and children are forbidden it because it is supposed that the milk upon which they

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

To the frontlets are affixed one or more feathers (figs. 32, 16—18, 24, 30 and others). These are obtained from many different birds, ranging from ostrich and white heron to domestic fowls. The feathers are often nicked,

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Fig. 40. Frontlet, of wool, with angular ornament in brownish-black and greyish-white. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 9.

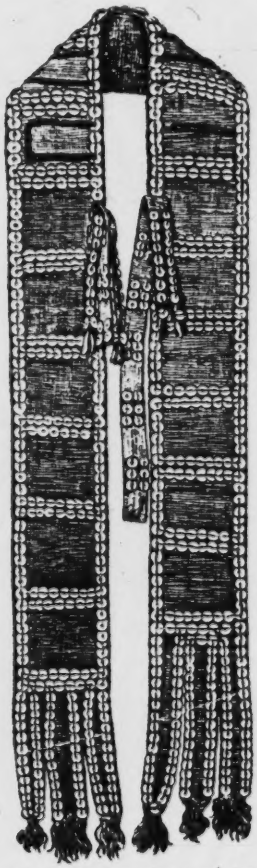
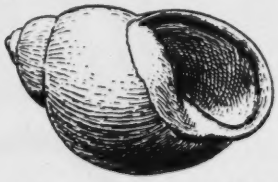


Fig. 41. Head ornament, consisting of a red, woollen, frontlet, 7 cm wide, with snail-shell spangles sewn on, and, in front, beset with turquoise-blue glass beads. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 10. 3. 134.

[531]

Fig. 42. A Lengua Indian with head ornament, »scalp lock» and whistle (the latter hanging round the neck on a string). From Hawtrey.[1]



[825]

Fig. 43. Borus oblongus, a white land snail, common in the Chaco. From its shell the Indians make small spangles, with which they adorn themselves. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 47.

[1] Hawtrey (1), p. 282, fig. 2.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

237 292 302 [415] and tied with woollen-yarn on to a small stick or cane splinter (fig. 48), for sticking into the fillet of the frontlet. The Indians take very great care of their feather ornaments, and the easily damaged ostrich plumes (see front-page plate and fig. 49) are kept encased in bamboo. The plume-case reproduced in fig. 50 consists of a piece of bamboo, 50 cm long and 2.5 cm wide. At the upper joint there is a hole, 3.2 cm long and 1.2 cm wide, through which the partition wall has been removed. The bamboo chip cut out in making the hole near the bottom end, is tied over the hole with a thin strip of bast; whereas the upper hole is without such a lid. The lower hole differs from the upper, in that its edges, as well as the edges of the lid, are painted red. I presume that neither of these holes has been made exclusively for the purpose of facilitating the removal of the wall within the joints, but that they have also served to make easier the taking out of the feathers from the case. The painting red of the holes and lid edges has, as I shall show further on, probably been done with magic intent, for the safeguarding of the plumes.

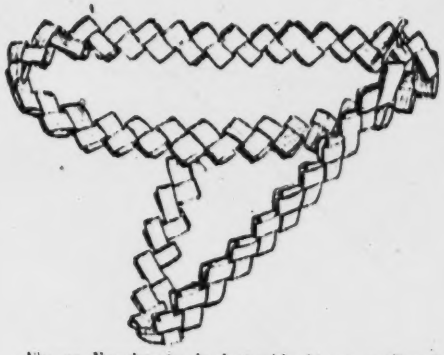


Fig. 44. Frontlet of palm leaf, with chin strap. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 14.

[189] 292 302

Fig. 45. »State» frontlet, made of white and pink feathers and down from the pink »spoonbill». Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 15.

The curious object seen in fig. 51 is, it has been stated, meant to be used as an ornament at dances; it is made out of the leaf of a fan palm (Copernicia australis). It seems to me,

292 302 [124] cluster being merely a head ornament, but the Chaco Indians often give information that is purposely incorrect, and hence one cannot always rely upon their explanations.[1] A quaint head ornament, met with among the Choroti, consists of a cross, about 1 dm high, constructed of feathers, thread, and a wooden stick. These crosses, worn stuck into the frontlet, are very similar to a kind of ornaments, probably symbolic or magic, that are occasionally found together with ancient Peruvian mummies.[2]

[237]

Fig. 48. Ornament of white feathers, meant for fixing in a frontlet. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 26.

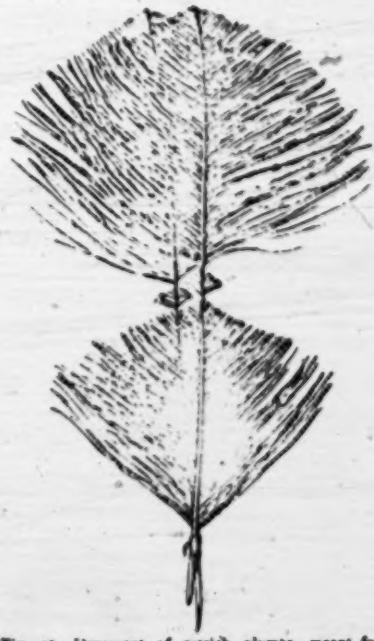


Fig. 49. Ornament of ostrich plumes, meant for fixing in a frontlet. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 20.

302 727 Occasionally the Choroti, and also other Chaco Indians, gather a lock of their front hair into a tuft, tying it round with yarn or narrow woollen tape, so as to make it look like a brush, or broom. Sometimes they make a similar little brush from false hair, and wear it pushed in under the frontlet, over the forehead, so that it points downwards. The false-hair brush here depicted (fig. 52) possessed special value to the Choroti

[1] As to the lying disposition of the Indians of the Chaco, see for example Nordenskiöld (11), p. 34.
[2] Nordenskiöld (11), pp. 138—140.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

who was wearing it, for, according to his statement, this ornament originally belonged to an enemy killed by him (Cf. the »scalp lock» on the Indian in fig. 42). 302 727

On the Spaniards' first coming to the Inca kingdom, there was, naturally, in that country much that aroused their great astonishment. Among 101

415 237 824

Fig. 50. Bamboo casing for keeping ostrich feather head ornaments. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 10. 3. 18.

Fig. 51. Palm leaf object, said to be meant for wearing in a frontlet. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 89.

other things, the strangers found it especially remarkable that Peruvian men of noble birth were wearing immense, often metal-mounted wooden discs, or hanging ornaments, in their pierced ear-lobes, which were distended to a monstrous size. This custom occasioned the Spaniards to give the Peruvian nobles the nickname of »orejones» — which might be

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

These casings are not sewn together, but consist of the seamless skin of the tail or leg of some animal. At first I took it as a matter of course that these casings had been put on solely for the purpose of strengthening the bow at some point where it looked like breaking. In order to make certain, I cut loose a casing of this kind, which was on the bow numbered 03. 3. 253, but I could not discover the least crack, knot, or other defect pointing to any necessity for reinforcing the bow at that point. But, between the casing and the stave, I did find some flattened cakes of excrement from some herbivorous animal. Whether these excrements had *purposely* been placed inside the casing, is of course impossible to say, but if they were put there on purpose, then they undoubtedly possessed some magical significance. In such case the idea must have been that they would bring good luck in the hunting of the species of game whose excrement had been placed inside the casing (see p. 181). As among the Indians there is a very wide-spread notion that whoever possesses the skin of some animal also possesses a certain mastery over the spirit of that animal,[1] it is not impossible that the skin casing itself is of a magic character. Professor Emil Holmgren, who, at my request, kindly carried out a microscopical examination of the excrement flakes as well as of the piece of skin, considers that the character of the latter points to its having been a part of the tail of an animal of the goat, sheep, or *cat* tribe, and that the colour and grouping of the hairs are indicative of the *last-mentioned* category.[2] That parts of animals' bodies are used by the Chaco Indians as hunting amulets, is, among other things, evident from a statement by Nordenskiöld upon the subject of hunting among the Ashluslay, who are neighbours of the Choroti: »In hunting, the Ashluslay make use of various amulets. If, in the always indispensable caraguatá bag, one carries the head of a tortoise, then one is able to stalk close up to the deer, without putting them to flight. When hunting ostriches, it is a good thing to bring along pieces of skin taken from the breast of ostriches which one has killed.»[3] As to the other two bows, I have refrained from cutting off the skin casings, and therefore cannot say whether the latter conceal any cracks or not. On the staves of the bows Nos. 03. 3. 252 there are, however, to be seen, close to the casing, several deep scorings, running

[1] Karsten (4), p. 90.
[2] Opinion dated August 24th, 1931. Rockefeller collection of Manuscripts, Volume 1931, »II».
[3] Nordenskiöld (13), p. 40.

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[824]

[237]

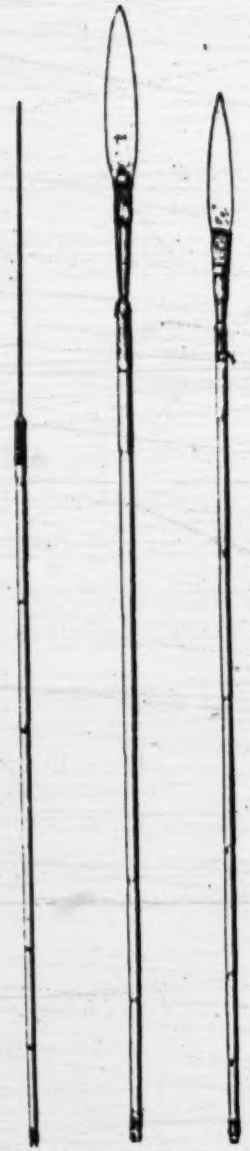

Fig. 104. 1/2 03. 3. 355. Fig. 105. 1/2. 03. 3. 360. Fig. 106. 1/2. 03. 3. 375. Arrows tipped with iron, and with reed shafts. Choroti. Grant'haco. Bolivia. Riksm.

specimen, which ought to be in the Riksmuseum collection (numbered 03. 3. 259).[1]

The arrow-shafts consist of a reed, and are generally without feathers. When they do occur, they are fastened on in the way fig. 107 shows.

The wooden arrow-heads, which are usually of quebracho (Schinopsis lorenzii), palo mataco (Achatocarpus praecox), or palo santo (Bulnesia sarmienti), are fitted into the reed shaft, the front end of which is wound with caraguatá fibre in order to prevent its being split open by the arrow-head. This winding is coated with bee's-wax. The rear end of the reed has a notch for the bow string (see fig. 107). The length of the reed is adjusted in such a way that the notch in the butt end can be made immediately behind a joint, which naturally increases the strength of the shaft butt. The rear end of the shaft too is provided with a heavily waxed winding of caraguatá fibre. The thicker end of the reed (the lower end of the growing reed) is always used for fixing the arrow-head, as then the joints slip more easily over the bow-stave than if the head were inserted in the thinner end of the reed.

Such arrows as are pointed with thick iron wire (fig. 104), have the rear end of the point wound with well waxed fibre. The fibre-wound part of the arrow-head is pushed so far into the shaft as to make the front edge of the winding come flush with the mouth of the reed shaft. Lanceolate iron heads (figs. 105 and 106) are fitted into a cleft wooden socket, in the manner I have described from the Chiriguano (see p. 208).[a] Over the winding, which

[1] Cf. Nordenskiöld (II), fig. 5 b.

[a] [Not processed. – Analyst]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

with the tail skin of a lizard. The blade and handle form an obtuse angle, and the edge has been ground on the outer side of the angle. This peculiar shape of knife corresponds to the shape of wooden knives that have been found in ancient Indian graves on Puna de Jujuy and in Quebrada del Toro.[1]

Fig. 145. Rope, of bast. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 244.

Fig. 146. Knife[2] with one-edged blade of soft iron, and handle of wood, covered with lizard skin. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 189.

Fig. 147. Awl, consisting of the right ulna of some large feline, probably puma. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 183.

The Choroti also use wooden knives, resembling broad-bladed chisels.[2] Knives of this shape, which the Choroti now also make of iron, are principally used for cutting up fish, or for opening and dividing pumpkins, water melons, and other kinds of fruit. For cutting up meat, sharp-edged cane splinters, or — and nowadays most generally — iron knives, are used. As I have previously mentioned, the Choroti also use the sharp-toothed jawbones of the palometa fish (Serrosalmo sp.), as knives for hair-cutting, fig. 84.

[1] See, for example, von Rosen (10), figs. 59, 127–131.

[2] Nordenskiöld (11), figs. 12 and 13.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6 Mataco SI7

C 322 [372]

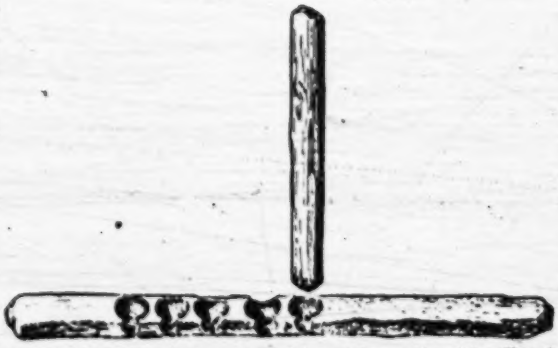

Fig. 148. Fire-drilling implement, consisting of two wooden sticks. Choroti. Gran Chaco, Bolivia. 1/3. Riksm. 03. 3. 193.

For scraping and polishing wooden objects, pieces of mussel-shell are used. Formerly, when the Choroti could not obtain iron, all woodwork was produced exclusively by means of fire and mussel-shells. In shaping a piece of wood, the parts that were to come away were burnt in the fire, and the charred parts then scraped off with a sharp-edged piece of mussel-shell.

Nordenskiöld mentions that the Choroti, in the same way as other Chaco tribes, use saws made of hard wood with which they, among other things, saw off the stem and leaves of the, to the Indians so important, caraguatá plant,[1] after having grubbed it up with a fork-like digging stick.

C [412]

Fig. 149. Stems of a liana (Asclepiadaceæ), which forms the material of which fire-drilling implements of the Choroti generally are made. Gran Chaco, Bolivia. 1/1. Riksm. 03. 3. 196.

C [412] 321

Awls for working purposes are made of bone (fig. 147). Bone awls are also used for tattooing (see p. 75, 78), magical blood-letting (see pp. 63 and 64), and as weapons of offence (see p. 101).

C 372 [415] 23 M 372 415 237

Like other Chaco tribes, the Choroti produce fire by drilling. Their fire-kindling implement consists of two round-sectioned, dry sticks of wood (fig 148), usually obtained from a species of liana (of the Asclepiadaceæ), fig. 149. One stick (the female one), which is thicker, and usually longer, than the other one (the male stick), has one or more bowl-shaped indentations, at

Fig. 150. Tail of armadillo, used as a tinder box. Mataco. Gran Chaco. Argentina. Exactly similar tinder boxes are used by the Choroti. 1/1. Riksm. 03. 3. 572.

[1] Nordenskiöld (11), pp. 65 and 66, also (12), pp. 110 and 111.

534 What has above been said concerning the construction and the way of blowing on ancient Peruvian, and Brazilian, flutes, applies in every particular to Choroti reed flutes of the type seen in fig. 162.

With whistles of the construction shown in fig. 163, different tones may naturally be produced by opening or closing the three round holes made

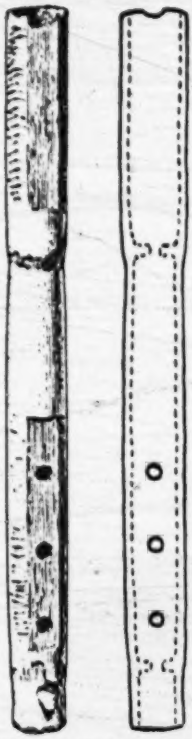

Fig. 162. Flute, of reed. Incised ornament. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 208.

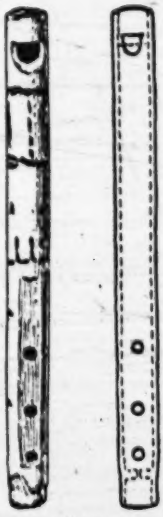

Fig. 163. Whistle, of reed. Ornament burned in. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 210.

Fig. 164. Whistle, of a bird bone. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 213.

through the side of the instrument at its lower end. At its upper end the opening is partly closed with wax. This particular whistle is blown in the same way as our ordinary whistles. Some closed Choroti reed whistles are only provided with one hole, usually semicircular, near the opening of the mouthpiece, and are thus without any holes by which different tones can be produced.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

The wool of the sheep is turned to account. Sheep and goats are sometimes killed.

Cow horns are used as tinder-boxes, spoons and occasionally trumpets.

Little enclosures are sometimes built for the sheep and goats.

Goat horns are also turned into spoons.

Fig. 11. Wooden Spur.
Ashluslay. G. M. (A. 197) 1/2.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XX.

Toilet articles.

A C 302

The Indians here dealt with are acquainted with the use of comb and brush. The use of the comb in S. America is very widespread; that of the hairbrush is much less so.

A C [237]

Fig. 39. Hairbrush. Ashluslay, G. M. (A 701) 1/2.

I have in my collection *hairbrushes* (Fig. 39. Map 23) from the (6) Mataco, (1) Choroti, (2) Ashluslay and (3) Tapiete. They are, moreover, known among the (10) Araucanians[1]), (26) Patagonians[2]), (66) Peguenche[3]) and (X 5) Yahgan[4]).

LEHMANN-NITSCHE[5]) gives a drawing of an object from an excavation in the (D) Puna de Jujuy which probably depicts a hairbrush. The hairbrushes of the Choroti, Ashluslay and Mataco are made of ant-bear hair. The Tapiete Indians use brushes made sometimes of hair, sometimes of roots. Otherwise they are made of twigs or roots.

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[1]) UHLE (6). p. 13.

[2]) OUTES and BRUCH (5), p. 122, fig. 118.

[3]) LUIS DE LA CRUZ, p. 35: «Y advierto que sus peines es un manojo de boquis ó raicesillas delgadas de que nosotros usamos para barrer las casas.»

[4]) OUTES and BRUCH (5), p. 138, fig. 140.

[5]) (1), Pl. 4, F. 6.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

Warrau[1]), Conibo[2]), Canella[3]), Tapuya[4]) Cumanagoto[5]) and from the Incas[6]), and rattles of the claws of animals from the Payaguá[7]) and Kayapó[8]).

If the great museums were searched a number of these rattles would probably be found from other tribes. Moreover the particulars I quote here from literature on the subject might certainly be considerably amplified. It is interesting to see how the claws are fastened on the rattles from the Chaco. (Figs 49a and 49b)

Trumpets of a peculiar kind are found among the Choroti, Ashluslay and Chané. They consist of a cow's horn with a reed mouthpiece (Fig. 50). I have not seen trumpets with such mouthpieces among any other Indian tribes visited by me, nor have I found them described in works on the S. American Indians except in some works dealing with the Chaco; I am therefore inclined to assume that the Indians have learnt their use from the whites. Still, this is not absolutely certain, as they are mentioned by so early a writer as Sánchez Labrador from the Mbayá[9]). It is, however, very probable that the Mbayá, even in Labrador's time, had learnt the use of such trumpets from the whites.

The Choroti and the Ashluslay have whistles made of reeds, wood and skulls.

The simplest whistle is one consisting of a small skull

[1]) Schomburgk, Vol. 1, p. 134.
[2]) Ordinaire, p. 900.
[3]) Kissenberth (2), p. 96.
[4]) Piso et Marcgrav, p. 274.
[5]) Oviedo y Valdés, Vol. 2, p. 230.
[6]) Como, Vol. 1, p. 220.
[7]) Azara (2), p. 150.
[8]) Pohl, p. 101.
[9]) «Mientras beben los convidados tocan una corneta, cuyo ronco sonido aturde y amedrenta. No es otra cosa esta bocina, que un cuerno de vaca, ó un calabazo largo, agujereado, y por boquilla un cañuto de caña con su lengüeta, al modo de las trompetillas que hacen los muchachos.» Vol. 2, p. 1.

[text continues on p. 179]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

136 I have mentioned that the Choroti do not possess any water-craft, so
481 that when fishing with nets they often have to wade or swim. In doing
292 this, they expose themselves to being attacked by palometa fishes. As a protection for their legs in wading, the Indians occasionally wear a kind of mail stockings of caraguatá (see p. 54), but when they are swimming, they often get badly mauled by these fierce fishes, and I saw several Choroti with enormous scars from the bites of palometas (fig. 53). It also happens, now and again, that Indians, whem swimming, get killed by caymans, which, here and there, are plentiful.

[286 824]

Fig. 118. Mesh-spacer of palo santo (Bulnesia sarmienti). Length 14.0 cm, width 3.0 cm; thickness along longitudinal axis 0.6 cm. The thickness decreases towards the longer edges, which are rounded. Choroti. Gran Chaco. Bolivia. Riksm. 03. 3. 242.

222 In the collection of the fruits, roots and pith of wild plants the Choroti possess an important source of subsistence. The Chaco Indians obtain edible fruits from, inter alia, the algaroba (Prosopis alba), the chañar (Gourliea decortitans), the mistol (Zizyphus mistol) and the tusca (Acacia aroma). The rootstocks of the caraguatá, or chahuar (Bromelia serra), plant are used for food by these Indians, and the same applies to the pith of the fan palm (Copernicia australis). For pulling down within reach the fruit-bearing branches of trees, the Indians make use of wooden hooks with a short arm and a long one, the latter then serving as a handle, whilst the tree branch which is to be bent down, is hooked with the shorter arm of the implement.[1] In digging up the spiny caraguatá plants the Choroti use a forked stick.[2]

[227]

Fig. 119. Fishing hook of iron, with line of caraguatá fibre. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 238.

Fig. 120. Fish club of palo santo (Handle upwards). Choroti. Gran Chaco. Bolivia. 1/4. Riksm. 03. 3. 87.

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At the time of my stay among the Choroti, the part of the tribe with whom I was in touch carried on no other agriculture than the growing of pumpkins in a primi-

[1] Nordenskiöld (11), fig. 3.
[2] Nordenskiöld (13), fig. 49.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6
Toba 5112

tive fashion, and, according to Nordenskiöld and Karsten, such agriculture as the Choroti engage in, is still on a very inconsiderable scale. Nowadays, however, these Indians cultivate — although not to any great extent — the following plants, viz.: pumpkins, cucumbers, water melons, maize, beans, manioc, sweet potatoes, tobacco and cotton.[1] Their only agricultural implements consist of digging-sticks of hard, heavy wood, and a kind of paddle-like, wooden spades. A typical digging-stick is reproduced in fig. 27.

It is probable that the Choroti originally had no other domestic animals than dogs, and the only tame animals I personally saw among this tribe were dogs and fowls. Those of the Choroti Indians who are living in the neighbourhood of the Pilcomayo possess, beside the animals mentioned, also sheep, goats, cattle, horses and cats. Sheep-rearing has now come to be of great importance to the Indians, who use the wool as material for mantles, fillets, etc.

Fig. 121. Cord on which fish are strung by means of a large needle of hard, heavy wood. This kind of carrying-gear is very common among the Choroti. The specimen here reproduced originates, however, from the Toba (neighbours of the Choroti). Gran Chaco. Bolivia. $^{8}/_{9}$. Riksm. 03. 3. 766.

As mentioned, the Choroti are a nomadic people. Their changes of location may be due to various circumstances. When pasture is exhausted in one place, they must look about for another; they move on to more profitable fishing-waters, or wander into regions that are rich in game and wild, edible plants. But there may also be other, and quite different, reasons for the Choroti's leaving their old abodes. In epidemics, when deaths are plentiful, it happens that the Choroti abandon their villages, and this they may also occasionally do if they are apprehensive of visits from whites (see pp. 47 and 48). In a first-rate monograph, Dr. Ragnar Numelin has exhaustively analyzed the causes governing the nomadic instinct in primitive peoples. As re-

[1] Nordenskiöld (11), p. 29.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

V.

Cultivated Plants and Agricultural Tools.

A C 241

The Choroti grow small quantities of Indian corn, manioc, zapallo[1]) water-melon, tobacco, cotton, beans,[2]) calabashes, and sweet potatoes. The tilling of the Ashluslay Indians is more considerable than that of the Choroti. Thus, I have seen among them large manioc plantations. The water-melon, which did not exist in America at the time of the Discovery, reached the Choroti and Ashluslay from the whites. The Choroti call it «santia», from the Spanish «sandía».

A C 174

Manioc and probably tobacco, too, must have reached the Chaco from the north or the east. Where the Choroti and Ashluslay got the other cultivated plants from, i. e. whether they obtained them from the Bronze Age culture of the west, or not, is a question I do not venture to decide. In all probability they are not very old in the Chaco, for the Choroti and the Ashluslay are but too evidently tribes which are predominantly gatherers of wild fruits and fishermen to have practised agriculture for a long period of time. The peaceful Arawaks must have been largely instrumental in spreading the knowledge of agriculture in the Chaco. AZARA[3]) writes of the Guaná[4]): «Rozan para sembrar tabaco, algodón, mandioca, batatas. . . de que viven y no de la caza ni pesca.»

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[1]) Cucurbita.
[2]) In several varieties.
[3]) (2) p. 384.
[4]) Chané.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

A
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241

The agricultural tools of the Choroti and Ashluslay Indians, like those of all the S. American Indians, are very simple. They have sticks and spades, and the Ashluslay have also a kind of club with which they break up clods. Of these tools the stick has a very wide distribution throughout the S. American continent wherever the Indians have any civilization. It is certainly as old in the Chaco as agriculture itself. I cannot therefore say that the Chaco Indians have taken it from anywhere. The spade, on the other hand, is probably a cultural element that reached the Indians of the Chaco from the mountain civilization. This is clearly seen from its geographical distribution. (Map. I). The spade of the Chaco Indians is sometimes made of one piece, the blade being occasionally bound to the handle. Both blade and handle are always of wood, generally of lignum vitae (palo santo).

The spades made in one piece have the shape of a canoe paddle (Fig. 1) with a little handle at the top. The Chiriguano also have a handle to their spades. The spades that have been found in N. Argentina and on the coast of Peru, have as a rule very long blades, like the spades of the Chaco Indians, but no handle. That the Indians of the Chaco should have learnt the use of the spade from the whites, is not probable. Nor is it likelythat, as I have elsewhere assumed, the are copied from paddles[1]).

Fig. 1 Wooden spade. Ashluslay, R. M. (A .1816).

[1]) I will return to this point, in consequence of MAX SCHMIDT's recently publishe l article in Z. f. E. 1918, p. 12. He shows that, besides among the tribes mentioned above, the spade occurs among the Kadiuéo, Bororó,

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

A 241 Clubs for breaking up clods are known to me, besides from the Ashluslay, only from the Aymara[1]).

The hoe with a haft bent at an angle, which is so typical of the mountain civilization, was not seen by me in the Chaco, or among the other tribes I visited east of the Andes.

A C 241 For removing the seeds from corn-cobs the Choroti and the Ashluslay use a little tool (Fig. 2) which I have only seen elsewhere among the Chiriguano and the Chané. From books I only know anything similar from the Ijca[2]) in Colombia.

[1]) British Museum. Handbook, p. 280. These have stone heads, while those from the Ashluslay are entirely of wood.

[2]) BOLINDER (4), p. 74.

Fig. 2. Tool of wood and leather for removing the seeds from corn-cobs. Choroti. G. M. D. (1318) 1/2.

Mataco SI7
Choroti SK6

M /320 cont./

771 They have a vague idea of superior beings, whom they fear
776 without worshiping them; the cleverest one becomes the sorcerer
756 and exploits the poverty of his companions, especially today when
648 they are earning money from the whites, to whom they lend im-
464 portant services.

M They frequently move from the region that they occupy to
167 the Argentine Republic; they work, dress, learn some Spanish
177 and a slight smattering of civilization, and return to their lands to live as before.

Choroti.

Ci They zone located southeast of Toba territory is occupied
131 by the Choroti Indians, who have their own language. They
197 occupy the geographic degree 22° 30' latitude and 64° 10' longitude, on the left bank of the Pilcomayo River.

Ci They are quite numerous and peaceful, and they are not
181 treacherous like their neighbors, the Toba. Nevertheless, they
648 inspire respect in all the neighboring tribes; if a mission were to be established at said degree, the conquest of all the Bolivian territory /321/ up to 24° would be accomplished without the need of so many small forts, which are such a great expense to the Nation and which do not create centers of trade and civilization.

Ci Father Gianelli in years past visited the Choroti Indians,
797 was received with displays of affection and appreciation, and
177 found among them good inclinations toward becoming civilized, but at that time the harvest was too much for so few evangelical workers.

Ci The Choroti are not so lazy and savage as the other tribes;
181 they devote themselves to the cultivation of a few seeds and to
241 the raising of cattle, although on a small scale. They are also
231 hunters, however, and when they occupy the banks of the
224 Pilcomayo, they take advantage of the fruits the river brings them, especially in the great floods.

352 [513] wooden sticks for fire-drilling, toilet articles, magic rattles etc. Contrary to the Chiriguano, the Choroti do not use bedsteads or hammocks, but sleep on the ground, with only an animal skin, or a woollen mantle between themselves and the ground.

[142 291]

Fig. 19. A man, with his daughters. Choroti. From the dry soil forest region between Caiza and Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

343 251 At the cooking-fires in front of the huts, the Choroti now and then erect square sheds, with flat, grass-covered roofs. These sheds are constructed like food-storing racks (fig. 28), and are used both as a protection from the sun and as sleeping places during hot nights According to Nordenskiöld, the Indians on the Pilcomayo use the roofs of these sheds for drying fish on.[1] I am of opinion that these sheds, originally, were only designed for the storing, drying, smoking or roasting of fish, and that, therefore, their use as shade-givers or sleeping-shelters is only

[1] Nordenskiöld (13), p. 36.

[Text continues on p. 47]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Fig. 27. Wooden digging-stick (wood of Bulnesia sarmienti). The handle and the spade-like point are flat, the rest, of round section. Choroti, Gran Chaco, Bolivia. 1/5. Riksm. 10. 3. 84.

a secondary one.[1] In Central Africa I have seen Wemba and Bisa men construct food-storing racks for smoking food, or drying it by fire. These racks are built on exactly the same plan as the cooking-sheds of the Choroti, although lower than the latter, and not covered with grass. That also the Indians of South America made use of drying or roasting racks, is evident from fig. 29, provided that this picture, reproduced from an account of travel in the 16th century,[2] actually is a faithful representation of an Indian roasting-rack.

The roasting-rack, such as it is reproduced above, may conceivably be a development of the food-storing rack discussed by me in chapter VII (pp. 198, 199), and in the following way: Those usually fairly tall racks that are built for the protection of food against damage from wild or domestic animals, are, as a rule, particularly well adapted for drying fish, etc. When the weather is unfavourable to sun-drying, the idea would present itself of assisting the preserving process by making a fire under the rack, by means of which the food would dry more quickly, at the same time that, through the action of the smoke, it would keep longer from decomposition. By lessening the height of the rack, in the way shown in fig. 29, the effect of the fire would be increased so much that the food would quickly be cooked, and ready for immediate consumption.

Fig. 28. Frame of cooking shed; also used as a food rack. Choroti, Gran Chaco, Bolivia. From Erland Nordenskiöld.

When the Choroti quit a dwelling-site in order to build their village elsewhere, they often burn their old

[1] Cfr. my theory as to the origin of pile building construction, pp. 193—196.
[2] Schmidel (I), p. 39.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

of the chaguar (chahuar).[1] This statement, which is erroneous, is due to the similarity of sound existing between chaguar[2] and chañar.[3] The *fruits* of the latter are eaten by the Indians, whilst of the former only the rootstock is edible.

By drying, the Choroti preserve vegetables against seasons of shortened food supply.

Personally I have not seen the Choroti use salt, but, nevertheless, they possess this condiment. Possibly they, like the Lengua, extract salt from the ash of a plant growing on the Chaco.[4] Salt-making from vegetable ash is known to many primitive peoples.[5]

Among the Choroti I never saw men and women eating together.

The preparing of food is, as a rule, the work of the women. The Choroti are not dainty about their food, and the uncleanliness which is a distinguishing trait in culinary matters among these Indians surpasses almost anything I have ever observed among other primitive peoples, with the exception of the Mataco Indians. Of the latter, however, my experience is limited to only a few families, and it may be unfair to judge the whole tribes from those.

Water, often muddy, ordinarily forms the drink of the Choroti. When in the dry season the Indians are on the move, or from some reason or other find themselves far away from any river, they sometimes suffer very badly from lack of water.

In the season for harvesting wild fruits, such as algaroba, tusca, and chañar, an intoxicating fruit beer is brewed. During the time of year that I visited the Choroti, there were no fruits of which any intoxicating beverage could be brewed; consequently I never had an opportunity of observing either the brewing of beer, or any drinking carousal. This led me to suppose that the art of brewing fermented liquor was unknown to the Choroti. Nowadays the Choroti have learnt from the Chiriguano also how to brew maize beer. Of the Choroti method of beer-brewing, Nordenskiöld has given the following description:

»When tusca beer is to be made, the fruit is first of all ground, and they water added, the whole being thereupon left in a dirty animal hide,

[1] von Rosen (3), p. 9.
[2] Bromelia serra.
[3] Gourliea decorticans.
[4] Hawtrey (1), p. 287.
[5] For one method of producing salt from plants, see von Rosen (4), p. 240.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
Choroti SK 7

In disposition the three tribes show great differences. The *Choroti* are pleasant and cheerful, and display to a high degree that humorous spirit which is often characteristic of the Indian even when he looks serious. They are lazy and carefree and love amusement, feasting, dancing, and games above everything. When the Choroti Indian has plenty of food and algaroba beer for the moment, he makes merry and eats and drinks as much as he can, but has no thought for the morrow and does not store provisions like the more advanced Chaco tribes. This particularly holds true of the men; the women, who in general are more industrious, show more forethought in this respect, collecting wild fruits in great quantities when they are in season, and keeping the seed-corn till the following sowing. But on the whole poverty is an outstanding feature of the material culture of the Choroti, and this is no doubt due to a great extent to their own character.

The Choroti are — at least nowadays — a peaceful people, and in the insignificant wars they have sometimes waged with the Mataco on the other side of the river, they have manifested very little organization or discipline. As I was told by settlers on the Pilcomayo, the Choroti were formerly more warlike, and like other Chaco tribes, they were even in the habit of scalping those enemies whom they killed during their raids.

The *Mataco*, although anthropologically closely related to the Choroti differ from them considerably in character. The Mataco Indian is serious, taciturn, and gloomy, and in consequence more addicted to religion and superstition than his brother the Choroti Indian. At least nowadays, when the Indians are strongly influenced by European civilization, the Mataco Indian will not make a reliable servant and companion. Cleanliness is not a particular characteristic of the Choroti, but the Mataco are probably the dirtiest of all Chaco tribes. This too may in part be a consequence of their contact with the whites. On the other hand, the Mataco are more industrious and energetic than the Choroti, and accordingly, in their wars, have proved more valiant and capable of more organization than their primitive neighbours. In these respects the Mataco, at any rate the Bolivian tribes, resemble their neighbours the Tobas more than the Choroti.

As to the *Tobas*, their moral qualities and disposition have been described with much unanimity by many travellers. Nearly all have characterized them as bad, ferocious, treacherous, thievish, etc., qualities which they have especially displayed towards the whites. Typical on

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

CHAPTER IV.

The Choroti (4). Food and drink. Household furniture.

Game used for food. Different ways of preparing, serving and eating the food. Preserving food. Salt. Water. Earthenware vessels. Bottles, boxes, dippers and spoons, made out of calabash shell. Wooden food dishes and spoons. Baskets. Large-sized bags of caraguatá fibre yarn. Carrying-nets. Men's handbags of caraguatá and wool. Cactus spines used as »Knitting needles». Distaffs. Weaving. Bast ropes. Knives, of iron, wood, and cane. Jaws of fishes, used as knives. Mussel-shell scrapers. Wooden saws. Bone awls. Fire-drilling.

262 Whilst on the subject of the hunting methods of the Choroti, I stated that those Indians look upon almost any kind of wild animal as being eatable, and that they even eat such, from a food point-of-view, repulsive animals as foxes, rats, vultures, owls, lizards and snakes. Certain insects, too, e. g., the larvae of a large beetle, and locusts, are used as food. The eating of foxes and vultures is not, however, practised by all Choroti. Nordenskiöld, for instance, says that foxes are by the Choroti considered useless for human food,[1] whilst Karsten numbers the fox among such animals as are eaten.[2] The latter, however, adds that vultures, owls and foxes are only eaten by elderly people who may be considered versed in the art of laying evil spirits. Therefore in the case of the Choroti, it would seem as, if the question of the edibility of any particular animal were largely dependent upon magical conceptions, so that anyone who is an expert exorcist may safely indulge in the eating of the flesh of any wild animal (see p. 97).

●252 Meat may be roasted paled on skewers, or broiled on hot embers, or it may be boiled, and smaller animals, such as lizards, snakes and rats, are placed in the ashes that are on top of the glowing coals, without

[1] Nordenskiöld (13), p. 33.
[2] Karsten (9), p. 38.

[p. 114]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

skinning or gutting, and are usually eaten with entrails, excrement and all. When the Choroti eat the entrails of larger animals, they do not first rinse them out, but are, at best, content with squeezing out the contents. Nordenskiöld has seen them eating intestinal contents as spinach together with the meat.[1] Fish is grilled, either by being laid on glowing embers, or tied between two sticks stuck into the ground by the fireplace.

As servers for food are used bowls of clay, wood, or calabash shell, or merely large, fresh leaves.

In foregoing chapters I have given the names of such plants, wild as well as cultivated, as are of importance in the food supply of the Choroti. Vegetables are eaten raw, boiled, roasted or dried. The Choroti, like other Chaco tribes, eat the fruits of the algaroba, and other similar fruits, in the following, rather original way. The raw fruits are put into a large wooden mortar (fig. 122), and there pounded up. The pulp is put into a calabash bowl, where it is stirred up with water, and the dish is then ready for eating. Those who are about to partake, squat down around the bowl, and each individual helps himself with his bare hand to the pulpy mass, which he puts into his mouth, chews and sucks, whereupon he spits his mouthful of mush back into the bowl. Another mouthful is taken, and in due course spat out, and so on. This is repeated by all the participants of the meal until all the sweet and nutritious components of the mess have been used up. What a bowl of »fruit cheese« is like, after half-a-dozen Indians have been eating and spitting for a while, the reader may possibly picture to himself, by the aid of his imagination.

Fig. 122. Mortar and pestle of hard wood, the latter consisting of palo santo. Choroti, Gran Chaco, Bolivia. 1/6. Riksm. 03. 3. 155 and 03. 3. 157.

In another work of mine I have said that the Choroti eat the *fruits*

[1] Nordenskiöld (13), p. 53.

[2] *Cf. Rosen*, II.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

114 of the chaguar (chahuar).[1] This statement, which is erroneous, is due to
262 the similarity of sound existing between chaguar[2] and chañar.[3] The *fruits* of the latter are eaten by the Indians, whilst of the former only the rootstock is edible.

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[462] 515 252 The preparing of food is, as a rule, the work of the women. The Choroti are not dainty about their food, and the uncleanliness which is a distinguishing trait in culinary matters among these Indians surpasses almost anything I have ever observed among other primitive peoples, with the exception of the Mataco Indians. Of the latter, however, my experience is limited to only a few families, and it may be unfair to judge the whole tribes from those.

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[1] von Rosen (3), p. 9.
[2] Bromelia serra.
[3] Gourliea decorticans.
[4] Hawtrey (1), p. 287.
[5] For one method of producing salt from plants, see von Rosen (4), p. 240.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XIII.

Fire-places and Accessories.

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The fire-places of the Indian tribes here dealt with consist of a few branches laid on the ground, pointing to the same centre, over which the food is roasted or cooked.

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The babracot is unknown in the Chaco, as it is in the Andes, in Patagonia and in Tierra del Fuego. In the Chaco the *Wooden spit* is used exclusively. It is sometimes furcated. (Fig. 17)[1]. Of the Indian tribes visited by me the following exclusively used the spit (Map 7): (2) Ashluslay, (10) Ayamara, (5) Chané (4) Chiriguano (1) Choroti, (6) Mataco (18) Quichua (3) Tapiete (7) Toba. The Mestizos in the Argentine also use the spit exclusively.

Fig. 17. Wooden spit. Ashluslay. G. M. (C. 497) 1/5.

The following tribes which I have visited are acquainted with the *babracot* Atsahuaca, Cavina, Chacobo, Cháma, Chimane, Guarayú (Mission); Guarayú (Pauserna), Huanyam, Huari, Tambopata-Guarayo, Yamiaca, Yuracáre.

The babracot and probably also the spit, are to be found among most of the tribes in Brazil, Guayana, Venezuela, and Columbia. The spit, but not the babracot, are stated to be used, in addition, by the (44) Charrua[2]) (97)

[1]) See also »Indianerleben», pl. 10.
[2]) Aravjo, p. 121.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

XIV.

Utensils used in preparing and consuming Food.

a). *Utensils for preparing flour.*

The Chaco Indians here dealt with understand how to prepare flour, as most of the Indians do. For this purpose they use small wooden mortars with pestles of the same material. Occasionally the Ashluslay quite simply use a pit in the ground as a mortar.

Two ways of grinding corn may be said to exist in S. America, in one the corn being crushed in a mortar, while in the other it is ground between stones or between a stone and a wooden block. The distribution of the two methods may be seen from the following table.

Tribes which use wooden mortars.
(See Map 10).

No. on the map.	
61, 48.	Tribes on the R. Negro, R. Yapura and R. Iça, KOCH-GRÜNBERG (2); WHIFFEN[1]), p. 141.
64.	Huari.
40.	Guarayú, Guarayos.
28.	Bakaïrí, STEINEN (3), p. 363.
90.	Chipaya, SNETHLAGE, p. 94.
15.	Kayapó, KRAUSE, p. 388.
13.	Karajá, KRAUSE, p. 254.
50.	Šavajé, KRAUSE, p. 358.
4.	Chiriguano.
21.	Cainguá, OUTES Y BRUCH (5) p. 95.
3.	Tapiete.

[1]) According to WHIFFEN the mortar is only used for pulverizing coca leaves.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

with stones in wooden troughs, or on wooden blocks, or with wooden blocks in wooden troughs.

Both the Choroti and the Ashluslay sift the corn through a net, and not therefore through a sieve specially made for the purpose. Of the tribes I got to know on my travels, the Toba, Mataco and Tapiete generally employ this method. All the others[1]) used baskets. The latter include the Chiriguano and Chané.

Pockets are also used for sifting. Honey is strained by the Ashluslay through a specially prepared straining cloth of Caraguatá.

As I have mentioned, the Ashluslay cultivate manioc. So do the Choroti, and probably some of the Mataco Indians. The cultivation of manioc must have reached the Chaco from the north or east. The boards used for rubbing the manioc root, are usual among the Ashluslay and Choroti Indians. These boards, which consist of a piece of palmwood into which numerous splinters of wood have been driven, clearly belong to the cultural elements that the Chaco Indians obtained from the north or east. Among a few tribes in N.E. Bolivia a prickly root of a palm is simply used as a grater, these natural graters probably representing the original type. In some districts sharp splinters of stone, instead of wooden splinters, are driven into the grating board.

Fig. 19. Manioc-Grater, Ashluslay. G. M. (A. 1662) 1/3.

I. The following tribes use a prickly root of a palm as a grater: (62) Chacobo, (22) Yuracáre, (63) Yamiaca and (X) Yurúna.[2])

[1]) With the possible exception of the Huari.

[2]) KLETKE, p. 683.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay. SK5

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II. The following tribes use a board into which wooden splinters have been driven: (2) Ashluslay (Fig. 19), (1) Choroti, (28) Bakaïrí[1]) and Suyá[1b]), (XI) Yamamadi[2]), (13) Karajá[3]), (61) Boro, Uitóto, and other tribes between the R. Putumayo and the R. Yapurá[4]) (IX) Colorados[5]) and (5C) Nambiquara.[6])

III. The following tribes use a board with stone splinters driven into it: (38) Tupinambá[7]), (74) Sáliva and other tribes on the R. Orinoco[8]), (47) Patamona, Macusi, Arecuna and other tribes in Guayana[9]), (48) Siusí and other tribes in N.W. Brazil.[10]), (V2) Indians on the R. Guainia[11]), (V5) Makiritare[12]), (55) Kalina[13]), (31) Trio[14]) (V 5) Yekuaná and Guinaú on the upper R. Ventuarí and R. Merewarí.[15])

IV. Without specification of the material: (20) Paressi-Kabiši[16]) and (V3) Caripou at Yapoco[17]).

The (59) Chrichana[18]) have grating-boards with teeth instead of stones. The Waika[19]) use rough slabs of granite

[1]) v. d. Steinen (2) p. 124.
[1b]) do. p. 206. Not marked on the map.
[2]) Rio Purus, Rhrenreich (2) p. 35 »Palm wood spikes.«
[3]) Krause p. 251. Spikes of »Prejauva wood«.
[4]) Whiffen, p. 141. Palm spikes.
[5]) Rivet (3), p. 191.
[6]) Roquette-Pinto (2), p. 185.
[7]) Lery, p. 110. Thevet, p. 302.
[8]) Gilij, Vol. 2, p. 304. fig.
[9]) Im Thurn, p. 200, Museum Material G. M. etc.
[10]) Koch-Grünberg (2) Vol. 1. p. 77 seq. Vol. 2. p. 205.
[11]) Ernst, p. 527.
[12]) Ernst p. 528, Krickeberg, p. 89. fig. 6.
[13]) Ten Kate, p. 3.
[14]) Gorje (2) p. 5.
[15]) Koch-Grünberg (communicated by letter).
[16]) Max Schmidt (4) p. 206.
[17]) »rapent sur vne pierre ou sur vn bois faict en facon de lime«. Mocquet, p. 83. »Ce pays d'Yapoco est à plus de 120 lieues du pays des Toupinambous.« Mocquet, p. 89.
[18]) Barbosa Rodrigues p. 151.
[19]) Koch-Grünberg (4), p. 200.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

as graters. On the coast of Ecuador (J) they have found grating-boards (?) of baked clay with stones fastened in the clay[1]).

It is of great interest to see that in N.E. Bolivia we only find the most primitive form of manioc grating-boards.

b) Cooking utensils.

The Ashluslay and the Choroti cook their food in simple pots of baked clay. Of the tribes I have visited in my travels, the Chámа and Tambopata-Guarayo Indians are the only ones that have no clay vessels. For the rest, very few S. American tribes have no cooking utensils of baked clay. They are the Botocudo and some other Gê's tribes, the tribes of Tierra del Fuego, and now also the Patagonians.

c) Wooden spits.

(See Chapter XIII).

d) Platter, etc.

The (1) Choroti and (2) Ashluslay eat off dishes of baked clay, or off calabash shells. The former, and probably also the latter, have wooden platters as well. The Ashluslay also have large wooden basins.

I have seen wooden bowl (Map 12) among the following tribes in addition to those named: (19) Aymara, (18) Quichua, (5) Chané (4) Chiriguano (6) Mataco, (22) Yuracáre, (23) Churápa and (89) among Indians on the Calilegua, Argentina.

They are also known from the (18) Quichua, Papallacta in Ecuador[2]) (10) Araucanians,[3]) (16) Guató[4]) (49) Araona[5]) (36) Ijca[6]) and the (68) Omagua (?)[7]).

[1]) Joyce, Pl. 6. fig. 2.
[2]) Uhle (1) Vol. 2. Pl. 17. fig. 18—19.
[3]) Latcham (1) p. 342.
[4]) Max Schmidt (3) p. 211.
[5]) Armentia p. 60.
[6]) Bolinder (4) p. 59.
[7]) M. f. V. L. (S. Am. 1330).

2: Karsten E-5 (1911-1913)1932 SI7 Matacc

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sible. I may add here that the Choroti men are in the habit of wearing round their neck a kind of flat whistle made of wood and ornamented with incised figures. With these whistles they produce shrill sounds from time to time during the dances, which are supposed to imitate the sounds of the spirits and have the power of frightening them away.

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How the Indians believe themselves to be able to influence even natural processes by imitating them, appears in an interesting way from the following curious ceremony which I witnessed among the Choroti. These Indians cultivate the maize only on a very limited scale, and it is among them a rare cereal. In a village the women had obtained some maize and were cooking it on the open place outside the huts. While the maize pots were boiling, the women sang in a loud, quavering, guttural voice, which it is impossible to describe exactly, an extremely monotonous chant, which was evidently meant to imitate the monotonous sound and the regular, bubbling movements of the water boiling in the pot. The women explained to me that *in this way the pot would boil well and the maize soon become soft.* The chanting was thus a means of »hurrying on» a natural process according to the same magical principles as we have noticed in several other cases.

142 Of the Choroti among whom I carried out my investigations, the men

appeared to be fairly tall of stature,[1] figs. 16—19, 30, whilst the height of the women was remarkably small, figs. 19—22, 30. I took height measurements of ten men and thirteen women, but as the table got lost during the expedition, I am not able to give the maximum and minimum measurements. But I have the computed average heights preserved in my diary, and they are 170 cm for the men, and 152 cm for the women. The height measurements at a later date made of Choroti (who had come to look for work at sugar plantations in Argentina) by Lehmann-Nitsche show an average height of 161.6 for men (aver. of 20 individuals), and for women 155.3 (10 individuals). That Lehmann-Nitsche and I arrived at such appreciably divergent results is because our measurements were taken of so small a number of people. [136] Lehmann-Nitsche having, however, measured twice as many males as I, it may be presumed that the average height obtained by him more nearly approaches the true average for the men of the tribe than does the result obtained through my measurements.

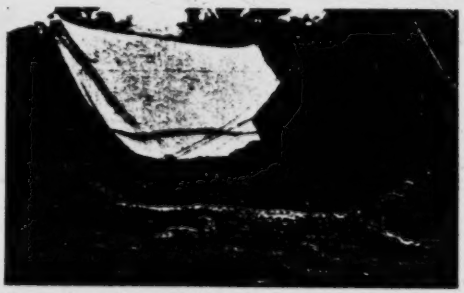

Fig. 15. Spectacle-cayman (Caiman sclerops). Camp at Tatarenda. Gran Chaco. Bolivia. Photo. E. v. R.

[304] The shape of the skull is predominantly dolichocephalic, and shows no traces of artificial deformation.[2] The men, as well as the women, are, as a rule, strongly and proportionately built, although in some individuals the breast is flat and the belly rather big (figs. 17, 37), the latter no doubt [262 146] resulting from the fact that the Choroti largely subsist on roots and fruits, a kind of diet usually producing distension of the stomach. As an example, in the rural districts of Europe it is no rare thing to come across persons, especially children, who, from a too-protracted diet of potatoes, have developed a distended stomach, a so-called »potato belly».

[1] That also among the Indians of the eastern part of the Chaco tall individuals are found, is evident from the following statement by Professor Carl Lindman: »Those Indians whom I saw along the Paraguay, opposite Asuncion and northwards, were to a large extent muscular and well built, some, even, were very tall of body and athletic looking.» Lindman (1), p. 72.

[2] These items of information have been supplied me by Professor Gustav Retzius, who has examined the Choroti skulls brought home by our expedition.

361 (material for roofing huts), the Indians are apt to build their villages in
824 the proximity of some grove, or forest, of palms (›palmar‹). As a case in instance, the Choroti village at Tatarenda was situated quite close to a palm grove, and not very far from a largish palm forest. It is of im-
● [262] portance that algaroba trees should be growing in the neighbourhood, as the fruit of this tree plays a prominent part in the food arrangements of these Indians.

342 The huts are of a very primitive character, and are built in the following manner; With a digging-stick (fig. 27) of hard, heavy wood, a succession of holes is dug, or jabbed, in the ground, so as to form a circle with a diameter of 2 metres or upwards. In each of these holes is planted an unlopped, bent-grown branch, thick end downwards, so that the tips of the branch point towards the centre of the circle. By this means a cupola-shaped frame is formed (fig. 26). This frame is covered with a thick layer of palm leaves and grass (figs. 16, 25), unless palm leaves are difficult to obtain, when the hut will be covered with grass only, although huts thatched in this way have less rain resistance. But even the most carefully built Choroti huts are, however, poor enough dwellings which, in any heavy downpour of rain, are unable to keep those inside them from a wetting.

Fig. 18. A man holding a pestle in his hands. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

The huts have one, or even two, entrances, about one metre in height (figs. 16, 25), but huts of the largest size are sometimes provided with several entrances. A sort of porch, constructed of branches and grass, may occasionally be built out from the entrance. When several huts are close together, they may not unfrequently be connected with each other by means of covered passages, or tunnels, built similarly to the huts.

352 The latter do not contain many utensils. Ranged along the wall, bowls
● 15 made of gourd shell, a few clay vessels and a wooden mortar, are gene-
824 rally seen. In prettily knitted net bags of spun caraguatá fibre,[1] the Choroti keep all manner of small articles, such as mussel-shell spoons,

[1] Caraguatá, or chahuar (chaguar), Bromelia serra, is, as I have already pointed out, especially common in the Chaco.

wooden sticks for fire-drilling, toilet articles, magic rattles, etc.

515 Painting,
302 pulling out of hairs, and, in certain cases, the cutting of the hair, are,
[782] however, probably to a great extent to be looked upon as acts of magic import.[1]

515 A toilet business that cannot very well be said to be due to any supernatural conception, is, however, lice-picking. Practically all Choroti are infested with lice. When these are getting too troublesome, somebody is called in for assistance (see fig. 89). This is a service willingly rendered by the Choroti, for it is a kind of hunting that they visibly enjoy. To an onlooker it would seem as if the louse hunters also greatly valued
[262] the quarry, for as soon as a louse has been caught, it is eaten by the hunter. But nevertheless I think it a mistaken idea that phthiriophagi find the lice nice-flavoured, for head lice are surely too small to have any particular taste, good or bad. Lice-eating probably has probably originated from a desire to render harmless, in the simplest way, such lice as have been caught. These little animals take a good deal of killing, if done with the fingers only, and there is not always a camp fire handy, into which to throw them; for less squeamish individuals, the eating of the catch undeniably proved the most practical way. I think it very probable that lice-eating also among monkeys has its explanation in a wholly conscious effort at annihilating noxious parasites.

[1] Karsten (4), Chap. 1, 3 and 6.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

CHAPTER III.

The Choroti (3). Modes of subsistence.

Their various industries. Hunting. Bows. Arrows. Game-stalking. Game-driving. Decoying game by imitative calls. Tracking. Snares. War weapons. Clubs. Knuckle-dusters. Bone daggers. Knives made of cane. Mail shirts. Methods of warfare. Incendiary arrows. Ambuscades. Preparing for war. Scalping. Torture. Causes of war. Fishing. Nets. Driving fish. Blocking up fishing-water. Swimming and wading, in fishing. Fish fences. Pile-buildings used in fishing. Mesh-spacers. Fish-hooks and lines. Fish clubs. Transportation of fish. Dangers in fishing. Gathering of wild food plants. Implements used in gathering wild plants. Agriculture. Cultivated plants. Agricultural implements. Cattle-rearing. Domestic animals. Nomadic life. Trading.

The Choroti subsist on hunting, fishing, the gathering of wild, edible plants, and, to some small extent, also on a very primitive form of agriculture, and by trading with their neighbours.[1]

Hunting of game is mainly done with bows and arrows, and snares. The pellet-bow and the sling are met with among the Choroti, but are only used as toys.[2]

The collection of Choroti objects that I presented to the Riksmuseum included 14 bows, only 11 of which are now to be found. They form the material upon which the following description of Choroti bows is founded.

The bow staves consist of some kind of wood which is hard, resilient and usually free from knots. Probably quebracho (Schinopsis lorenzii) and palo mataco (Achatocarpus praecox) are the woods most frequently used as bow stave material. The bows of the Choroti (figs. 90 and 91) are better made than those of the Chiriguano, but are not of such good workmanship as the bows that I have seen among the Toba on the upper Pilcomayo.

[1] The description I am here giving of the Choroti refers, unless otherwise stated, to this tribe's mode of living at the time my observations were made (1901). Since then, many changes have come into the Chaco Indians' mode of living.

[2] Nordenskiöld (13), p. 48.

[p. 85]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6 .

shape as the strange-looking Choroti arrow, which is seen in fig. 102.[1] The Esquimaux, like the Choroti, live in a bone-and-wood age, although the latter people to a large extent use the bone-hard wood of several species of Chaco trees in the place of bone. In both cases the arrows are intended for hunting big game. It is a strange thing, however, that the arrows just referred to, from Greenland and from the Chaco, are so much alike in shape that one might point to a reproduction of the Esquimaux arrow in question as being the type of a lanceolate, barbed, Choroti arrow. As to the ancient Indian arrows of Chaco type found within the Andean region, previously referred to, it is, however, not only their form that is identical with the Chaco arrows, but also the material (reed, and species of wood that do not grow in the mountain region) is typical of the Chaco. This being so, it may with great certainty be established that the ancient Indian arrows in question really originate from the Chaco, and that we here have one of the many indications that point to old-time communication between the mountain region and the plains to the east of it.

The Choroti hunt all sorts of game, from jaguars, pumas and ostriches, to lizards and rats. Among edible game are counted, among others, also birds of prey (even vultures), foxes, armadillos, rats, lizards and snakes. On the other hand, some Choroti, at least, will not touch deer's flesh, as they believe these animals to be possessed by evil spirits.[2] Some of the species of animals just enumerated, too, are by certain individual Choroti considered dangerous to eat (see p. 114).

When the Choroti are out hunting with bow and arrow, they naturally endeavour to stalk as closely as possible up to the game, and then occasionally employ a stratagem common to many tribes who live by the chase, namely that of tying tall leafy bunches about waist and shoulders, so as to give the hunter the appearance of a bush. This stalking trick is also known to the Lengua. On this point, Grubb writes to the following effect: »The ostrich is a very wild, though stupid bird, and the hunting methods of the Lengua are based on this fact. When hunting in a palm forest, the hunter ties a few palm leaves together and fastens them to his head and shoulders, so as to resemble a small palm. By means of this disguise he has no difficulty in getting within easy range of

[1] Solberg (1), p. 73, fig. 54, bottom row of arrows, the second specimen from the left.
[2] Karsten (2), p. 33.

1:Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

CHAPTER IV.

The Choroti (4). Food and drink. Household furniture.

Game used for food. Different ways of preparing, serving and eating the food. Preserving food. Salt. Water. Earthenware vessels. Bottles, boxes, dippers and spoons, made out of calabash shell. Wooden food dishes and spoons. Baskets. Large-sized bags of caraguatá fibre yarn. Carrying-nets. Men's handbags of caraguatá and wool. Cactus spines used as »Knitting needles». Distaffs. Weaving. Bast ropes. Knives, of iron, wood, and cane. Jaws of fishes, used as knives. Mussel-shell scrapers. Wooden saws. Bone awls. Fire-drilling.

262 Whilst on the subject of the hunting methods of the Choroti, I stated that those Indians look upon almost any kind of wild animal as being eatable, and that they even eat such, from a food point-of-view, repulsive animals as foxes, rats, vultures, owls, lizards and snakes. Certain insects, too, e. g., the larvae of a large beetle, and locusts, are used as food. The eating of foxes and vultures is not, however, practised by all Choroti. Nordenskiöld, for instance, says that foxes are by the Choroti considered useless for human food,[1] whilst Karsten numbers the fox among such animals as are eaten.[2] The latter, however, adds that vultures, owls and foxes are only eaten by elderly people who may be considered versed in the art of laying evil spirits. Therefore in the case of the Choroti, it would seem as, if the question of the edibility of any particular animal were largely dependent upon magical conceptions, so that anyone who is an expert exorcist may safely indulge in the eating of the flesh of any wild animal (see p. 97).

252 Meat may be roasted paled on skewers, or broiled on hot embers, or it may be boiled, and smaller animals, such as lizards, snakes and rats, are placed in the ashes that are on top of the glowing coals, without

[1] Nordenskiöld (13), p. 53.
[2] Karsten (2), p. 32.

[p. 114]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

skinning or gutting, and are usually eaten with entrails, excrement and all. When the Choroti eat the entrails of larger animals, they do not first rinse them out, but are, at best, content with squeezing out the contents. Nordenskiöld has seen them eating intestinal contents as spinach together with the meat.[1] Fish is grilled, either by being laid on glowing embers, or tied between two sticks stuck into the ground by the fireplace.

As servers for food are used bowls of clay, wood, or calabash shell, or merely large, fresh leaves.

In foregoing chapters I have given the names of such plants, wild as well as cultivated, as are of importance in the food supply of the Choroti. Vegetables are eaten raw, boiled, roasted or dried. The Choroti, like other Chaco tribes, eat the fruits of the algaroba, and other similar fruits, in the following, rather original way. The raw fruits are put into a large wooden mortar (fig. 122), and there pounded up. The pulp is put into a calabash bowl, where it is stirred up with water, and the dish is then ready for eating. Those who are about to partake, squat down around the bowl, and each individual helps himself with his bare hand to the pulpy mass, which he puts into his mouth, chews and sucks, whereupon he spits his mouthful of mush back into the bowl. Another mouthful is taken, and in due course spat out, and so on. This is repeated by all the participants of the meal until all the sweet and nutritious components of the mess have been used up. What a bowl of »fruit cheese» is like, after half-a-dozen Indians have been eating and spitting for a while, the reader may possibly picture to himself, by the aid of his imagination.

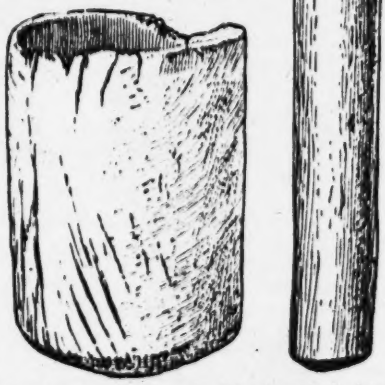

Fig. 122. Mortar and pestle of hard wood, the latter consisting of palo santo. Choroti, Gran Chaco, Bolivia. 1/4. Riksm. 03. 3. 155 and 03. 3. 157.

In another work of mine I have said that the Choroti eat the *fruits*

[1] Nordenskiöld (18), p. 53.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

of the chaguar (chahuar).[1] This statement, which is erroneous, is due to the similarity of sound existing between chaguar[2] and chañar.[3] The *fruits* of the latter are eaten by the Indians, whilst of the former only the rootstock is edible.

By drying, the Choroti preserve vegetables against seasons of shortened food supply.

Personally I have not seen the Choroti use salt, but, nevertheless, they possess this condiment. Possibly they, like the Lengua, extract salt from the ash of a plant growing on the Chaco.[4] Salt-making from vegetable ash is known to many primitive peoples.[5]

Among the Choroti I never saw men and women eating together.

The preparing of food is, as a rule, the work of the women. The Choroti are not dainty about their food, and the uncleanliness which is a distinguishing trait in culinary matters among these Indians surpasses almost anything I have ever observed among other primitive peoples, with the exception of the Mataco Indians. Of the latter, however, my experience is limited to only a few families, and it may be unfair to judge the whole tribes from those.

Water, often muddy, ordinarily forms the drink of the Choroti. When in the dry season the Indians are on the move, or from some reason or other find themselves far away from any river, they sometimes suffer very badly from lack of water.

In the season for harvesting wild fruits, such as algaroba, tusca, and chañar, an intoxicating fruit beer is brewed. During the time of year that I visited the Choroti, there were no fruits of which any intoxicating beverage could be brewed; consequently I never had an opportunity of observing either the brewing of beer, or any drinking carousal. This led me to suppose that the art of brewing fermented liquor was unknown to the Choroti. Nowadays the Choroti have learnt from the Chiriguano also how to brew maize beer. Of the Choroti method of beer-brewing, Nordenskiöld has given the following description:

»When tusca beer is to be made, the fruit is first of all ground, and they water added, the whole being thereupon left in a dirty animal hide,

[1] von Rosen (3), p. 9.
[2] Bromelia serra.
[3] Gourliea decorticans.
[4] Hawtrey (1), p. 287.
[5] For one method of producing salt from plants, see von Rosen (4), p. 240.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
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rarely succeed in killing a tapir, a deer, or a wild pig. Besides, the deer is an animal of which the Choroti have a superstitious fear, and its flesh is never eaten by them; when they kill one, they only keep the hoofs, which are used as magical rattles, the leg-bones, of which instruments used for ceremonial blood-letting are made, and the skin which is used for different purposes. Of birds, as I have stated before, the ostrich is especially appreciated both on account of its flesh and its plumes, which play a great role as personal ornaments and to which magical power is ascribed. In hunting the ostrich the Choroti, like other Chaco tribes, avail themselves of the trick of binding palm leaves together and placing them on the head and shoulders so as to resemble a young tree. Disguised in this way, the Indians generally succeed in getting within easy range of the shy bird, and are thus able to bring it down with their arrows. Another trick of which the Indians often make use in hunting is that of imitating the cry of certan animals and birds by means of round wooden whistles, particularly invented for this purpose. With the same whistles, which are supposed to possess magic power, they also imitate the supposed whistling sound of the spirits, which are thereby frightened away.

T 224

The Tobas are much more skilled hunters than the Choroti and the Mataco, and, at least in Bolivia, the country inhabited by these Indians is comparatively rich in game. Thus tapirs, deer, and wild pigs, of which latter there are two varieties, are frequent in the forests, and the Tobas hunt them eagerly, using bows and arrows as well as lances as weapons. All Indians, and particularly the Tobas, are expert in stalking ainmals; the latter are thereby aided by their dogs which are specially trained for the hunting of the wild pig. Even the jaguar and the puma are hunted by the Tobas with dogs.

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Of domestic animals the Chaco Indians keep dogs, sheep and goats as well as fowls.[1] Horses were long ago introduced among the Tobas who

[1]) Nordenskiöld, when treating of the domestic animals of the Bolivian Indians in his *Ethnography of South America seen from Mojos in Bolivia*, p. 114, amongst other things mentions that in Mojos only the civilized Indians keep cattle, which have been introduced by the whites, and adds the following erroneous statements as regards the Chaco Indians: »In the Chaco, on the other hand, *even the independent Indians have cattle* which play an important part for them. *The Indians keep no sheep or goats*». I wish to point out that neither the Tobas nor the Choroti, nor the Mataco on the Pilcomayo keep cattle. On the other hand, sheep and goats are kept by *all* Pilcomayo tribes and, as far as I know, by all other Chaco Indians, except perhaps some savage tribes in the interior of the unknown Chaco.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

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their rattle gourds, whilst the men provided with drums beat them. The girl in whose honour the dance was held was standing motionless and silent at the entrance of the hut reclining against the wall and had to remain so during the whole ceremony. Sometimes, when towards evening she got tired and was on the point of falling asleep, one of the medicine-men came up to her and shook his rattle close to her face as if to keep her awake. The ceremony began in the afternoon and was continued with short pauses throughout the whole evening until midnight. I was informed that as long as the dance goes on the girl need not be veiled, but as soon as the conjuration is finished for the night she must have her face and her whole body well covered. During the whole period that the dance is performed she is moreover obliged to fast, avoiding fish and meat and living only on some light vegetable food.

I may add that all the men who took part in the ceremony were painted on the face in one way or another. Some of them simply had the face coated red with roucou or black with charcoal, whereas others had X-shaped or other patterns painted on the cheeks. The men's faces are always painted in this way at the conjurations of the Indians, and these paintings have a purely magical significance.

The drinking of algaroba beer also forms part of the magical practices at the feast, but it is strictly limited to the men.

The object of all these ceremonies is to protect the girl against the evil spirits, the *möhsek*, by which she is believed to be particularly attacked during her unclean condition. The spirits try to enter into her through the face — especially through those parts where there is a natural opening of the body, such as the eyes, the ears, the nose, and the mouth — and also through the ventral parts, the consequence being, if they succeed in doing so, that she will fall ill and die, or become supernaturally pregnant and give birth to a monster. It is in this way that the Indians account for the birth of those deformed children which they kill directly after birth. To prevent such frightful accidents the girl's head and body are covered after the conjuration is finished for the night. By means of the dancing, chanting, drumming, etc. the evil demons who take an interest in the girl and swarm about her are conjured and rendered harmless. According to the idea of the Indians she is not only protected for the time being against their attacks, but she will also retain a certain power of resistance against them in the future.

The puberty of a girl is not celebrated in all cases among the Choroti with so many ceremonies as in the case just described, but the

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CHAPTER XVI.

Ceremonial fasting.

M 785 262 Fasting or restrictions in diet play an important part among the religious practices of the Chaco Indians. In most cases ceremonial fasting seems to be due to the belief that in eating man may come in contact with dangerous disease-bringing spirits which are in some way associated with the food. Since harmful spirits are supposed to have a special liking for certain kinds of food, these kinds of food are in some cases taboo to the Indians. The common belief that the spirits of the dead reincarnate themselves in various animals has in the first place given rise to all sorts of food restrictions, for the meat of such animals is generally, although not invariably, regarded as taboo.

M 262 The Indians of the Gran Chaco, dependent upon very restricted sources of subsistence, as a rule utilize everything that can possibly be used as food. Thus several animals are eaten which we do not regard as fit for food, and if a certain animal is despised, this is, as a rule due to superstitious ideas of one kind or another. The *Choroti* for instance among other things regard such animals as locusts, certain beetles, lizards, and a kind of rat as delicacies; of others the fox is considered edible, as also of birds the owl and a certain kind of vulture (called *carancho* in Spanish, *Polyborus vulgaris*). In regard to the fox, the owl, and the vulture, however, there is the restriction that only *old* people can eat them, not young people and children, whom such food would do harm. In several cases I received from the younger Choroti men the explanation: »The old ones can eat the meat of this or that animal, not we». This means that such animals or birds as those just mentioned are in some way associated with evil spirits; the eating of the meat of these animals therefore would have disastrous consequences for young people and children who have less power of resistance against evil

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2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SI6

spirits, but not for old men who are initiated in the magic art and know how to render them harmless. — It is curious that on the other hand an animal like the *deer* is regarded by the Choroti as absolutely unfit for food. Not even old men would touch the flesh of deer, believing that if they did, they would die. This is due to the belief mentioned before, that the deer is an evil spirit (*möhsek*), the reincarnation of the spirit of a sorcerer, a superstition which is widespread among the South American Indians and everywhere manifests itself in an aversion to eating the meat of this innocent animal.

Ceremonial fasting, as we have seen, is prescribed among the Choroti and the Mataco on certain occasions which are regarded as important and critical in some respect. Thus the father has to restrict his diet when he is lying in couvade, and girls have to diet during their first menstruation. We have also seen that behind these practices there is the fear of evil spirits in one form or another.

If disease and death bringing demons are believed to enter easily into the body with the food eaten, we can understand why eating is so often to the Indians a ceremonial business. This is also intelligible from the point of view that by eating an animal and coming in contact with its soul, a man may acquire the spiritual qualities of that animal. This idea explains the curious custom practised among the Tobas, that when a chief's daughter attains puberty, the men alone have to eat the meat of the ostrich, whereas the women eat the meat of the armadillo. As a general rule, both among the Tobas and among other Chaco Indians, men and women do not eat together but separately, the men first and the women afterwards. This custom is observed so strictly, that one may assume a particular superstition behind it. Moreover, when the Indians eat, they do not speak much with one another and do not like to be spoken to. Since they believe that man may evade evil spirits by keeping silence and avoiding attracting their attention, it is possible that the ceremonial character of their banquets is partly connected with this idea. And as women are especially believed to attract the spirits, this may be, or may originally have been, one reason why the men avoid eating with them. But it should also be remembered that in primitive societes eating together is believed to establish a mysterious union or connection between all those taking part in the common banquet. Since a strict distinction is made between a man's and a woman's spiritual qualities, it is not difficult to understand that the men avoid the company of the women on those occasions when they eat. However

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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[3] Gourliea decorticans.
[4] Hawtrey (1), p. 287.
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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

skinning or gutting, and are usually eaten with entrails, excrement and all. When the Choroti eat the entrails of larger animals, they do not first rinse them out, but are, at best, content with squeezing out the contents. Nordenskiöld has seen them eating intestinal contents as spinach together with the meat.[1] Fish is grilled, either by being laid on glowing embers, or tied between two sticks stuck into the ground by the fireplace.

As servers for food are used bowls of clay, wood, or calabash shell, or merely large, fresh leaves.

In foregoing chapters I have given the names of such plants, wild as well as cultivated, as are of importance in the food supply of the Choroti. Vegetables are eaten raw, boiled, roasted or dried. The Choroti, like other Chaco tribes, eat the fruits of the algaroba, and other similar fruits, in the following, rather original way. The raw fruits are put into a large wooden mortar (fig. 122), and there pounded up. The pulp is put into a calabash bowl, where it is stirred up with water, and the dish is then ready for eating. Those who are about to partake, squat down around the bowl, and each individual helps himself with his bare hand to the pulpy mass, which he puts into his mouth, chews and sucks, whereupon he spits his mouthful of mush back into the bowl. Another mouthful is taken, and in due course spat out, and so on. This is repeated by all the participants of the meal until all the sweet and nutritious components of the mess have been used up. What a bowl of »fruit cheese» is like, after half-a-dozen Indians have been eating and spitting for a while, the reader may possibly picture to himself, by the aid of his imagination.

Fig. 122. Mortar and pestle of hard wood, the latter consisting of palo santo. Choroti, Gran Chaco, Bolivia. 1/4. Rikom. 03. 3. 135 and 03. 3. 137.

In another work of mine I have said that the Choroti eat the *fruits*

[1] Nordenskiöld (18), p. 53.

[2] *Cf. Rosen*, II.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

114 of the chaguar (chahuar).[1] This statement, which is erroneous, is due to
262 the similarity of sound existing between chaguar[2] and chañar.[3] The *fruits* of the latter are eaten by the Indians, whilst of the former only the rootstock is edible.

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2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

as graters. On the coast of Ecuador (J) they have found grating-boards (?) of baked clay with stones fastened in the clay[1]).

It is of great interest to see that in N.E. Bolivia we only find the most primitive form of manioc grating-boards.

b) Cooking utensils.

The Ashluslay and the Choroti cook their food in simple pots of baked clay. Of the tribes I have visited in my travels, the Chána and Tambopata-Guarayo Indians are the only ones that have no clay vessels. For the rest, very few S. American tribes have no cooking utensils of baked clay. They are the Botocudo and some other Gê's tribes, the tribes of Tierra del Fuego, and now also the Patagonians.

c) Wooden spits.

(See Chapter XIII).

d) Platter, etc.

The (1) Choroti and (2) Ashluslay eat off dishes of baked clay, or off calabash shells. The former, and probably also the latter, have wooden platters as well. The Ashluslay also have large wooden basins.

I have seen wooden bowl (Map 12) among the following tribes in addition to those named: (19) Aymara, (18) Quichua, (5) Chané (4) Chiriguano (6) Mataco, (22) Yuracáre, (23) Churápa and (80) among Indians on the Calilegua, Argentina.

They are also known from the (18) Quichua, Papallacta in Ecuador[2]) (10) Araucanians,[3]) (16) Guató[4]) (40) Araona[5]) (36) Ijca[6]) and the (68) Omagua (?)[7]).

[1]) Joyce, Pl. 6. fig. 2.
[2]) Uhle (1) Vol. 2. Pl. 17. fig. 18—19.
[3]) Latcham (1) p. 342.
[4]) Max Schmidt (3) p. 311.
[5]) Armentia p. 60.
[6]) Bolinder (4) p. 59.
[7]) M. f. V. L. (S. Am. 1350).

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

Archaeological excavations have brought to light wooden bowles in the (D) Puna de Jujuy[1]) and on (A) the coast of Peru[2])

To judge from the distribution, the wooden bowl is a cultural element that the Chaco Indians received from the mountain civilization. The archaeological finds of wooden bowls in N. Argentina show that they were used there in pre-Columbian times.

Fig. 20. Wooden dish, Choroti. G. M. (W. 634) 1/6.

Fig. 21. Wooden bowl. Quichua-Mestizos. Calilegua, N. Argentina. R. M. (u. 24) 1/6

The shape of the little handles on the wooden dishes of the Choroti Indians are very similar to those on the bowls of the Quichua-Mestizos in N. Argentina (Figs 20. 21).

e) *Eating utensils.*

The (1) Choroti and (2) Ashluslay have spoons of wood (Map 13) and horn. As eating utensils they also use mussel-shells and calabashes.

Besides the above-named tribes, I have seen the following tribes in the course of my travels who used wooden

[1]) Lehmann-Nitsche (1), Pl. 5. E. 12.
[2]) Putnam, Pl. 26. fig. 6 and 7.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

114 of the chaguar (chahuar).[1] This statement, which is erroneous, is due to
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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

273 of singers were tired out, others took their turn. In the morning there was some more fishing, and for breakfast was drunk the tusca beer that had been made with so much trouble, after having been strained through a dirty bag, and served up in calabash bowls. The Choroti believe that by singing they hasten the fermentation of the beer.

The tusca beer is of an acidulous, refreshing taste, but has a sickly smell.

The fruits of the chañar are boiled, whereupon the mixture is allowed to ferment.

The fruits of the algaroba are ground, and warmed up in water, then, like the foregoing, the brew is left to ferment in huge, filthy, calabashes, or in very large troughs of the wood of the bottle-tree.[1] I have seen the Ashluslay preparing yeast by chewing part of the ground algaroba, and then spitting it out into the rest. Chañar beer is of a sour-sweet, somewhat nauseous, taste; algaroba beer is good. The latter has a sweet, somewhat astringent, taste. When long fermented, it is highly intoxicating. Maize beer I have seen brewed here. It is especially well known to a great many tribes in South America. It has a pleasant and refreshing taste.»[2]

271 When, during their wanderings, the Indians of the Chaco do not come across any rivers, lagoons or wells, and thus find themselves threatened by a lack of water, they collect the water that, after rain, has gathered at the base of the leaves of the caraguatá plant, where it will keep fresh for many weeks.[3]

271 [415] 482 The Choroti fetch and keep water in large, oval, sometimes spherical, earthenware vessels. When these vessels, like the one reproduced in fig. 123, are without handles, they are carried on the back by means of a caraguata net, the carrying cord of which is either placed across the forehead or across the chest. Water pitchers are, however, as a rule provided with two vertically placed handles, and also a shallow groove which runs through the latter, the whole being designed to give a hold to the carrying cord (see fig. 124). The cord is rested across the forehead

[1] Chorisia insignis.

[2] Nordenskiöld (13), pp. 89—91.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

or chest of the water carrier.[1] When the pitcher has been filled with water, its mouth is closed with a stopper of grass or leaves.

The cooking pots, which consist of burnt clay (figs. 125 and 126), are also used for roasting various vegetables. Pots of this kind from the Choroti are sometimes given wart-like decorations. These are either placed in rows some distance apart from each other (fig. 125) or in rows close together (fig. 126). This manner of ornamenting clay pots is of extreme antiquity in the New World, and occurs on grave finds right up through North America.[2] The little protuberances on the pot in fig. 125 have been produced in a different way to those on the handleless pot in fig.

Fig. 125. Cooking and roasting pot of earthenware burnt black. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 150.

Fig. 126. Cooking and roasting pot of earthenware burnt black. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 10. 3. 54.

126. On the case of the former, they consist of small clay pellets which have been stuck on the pot before burning, whilst the protuberances on the latter probably have been pressed up out of the wet clay by the potters fingers.

All pottery is made by women. The clay is mixed with powdered potsherds, then well kneaded and formed with the hands into rolls, as thick as a finger, with which the pot is built up.[3] When this has been completed as to its shape, its surface is polished by means of a mussel shell or a

[1] Water-drawing and carrying is exclusively a work for women.

[2] See, for example, Holmes (1), pl. XI, fig. g, and Moore (2), fig. 42.

[3] Cf. figs. 217 and p. 214. On the subject of Indian pottery-making, see for example Holmes (1), and Nordenskiöld (10).

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

or large calabashes, to ferment. One certain night, I was present at a 273
beer-fermenting in a Choroti village. Proceedings commenced by two men sitting in the men's club house on either side of the fire, singing, with their backs to each other, and beating time with calabash rattles. After a while they continued this round about the hide in which the brew was fermenting. A man and a youth were singing, accompanied by a rattle, turning their faces up to the moon. Elsewhere, here and there, other men were bawling and plying rattles. Then the earthenware drum was brought

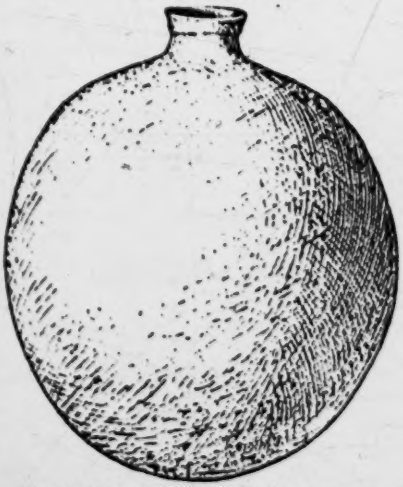

Fig. 133. Water pitcher. Yellowish brown earthenware. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 145.

Fig. 134. Water pitcher with carrying cord of caraguatá. Reddish-brown earthenware. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 146.

out, and placed on a ring formed of straw. Monotonous drum beats thereupon gave accompaniment to the singing. This stopped about midnight, and there was a rush down to the river where some fishing was done, with a fairly good result. The fish was then grilled and eaten. This night supper having been satisfactorily discussed, singing was resumed and went on, supported by one drum and four rattles. The songs seemed to me to consist of nothing but refrains, something like: 'huh, huh, huh, huh, huh, lah eh lah, huh, lah eh lah, . . . huh, huh, huh, lah eh lah'. The singing was at first low, then suddenly rising in loudness, then again subsiding low. Many were raucously bellowing in unison. When one lot

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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CHAPTER V.

The Choroti (5). Narcotics and Intoxicants. Games and amusements.

Different kinds of beer. Drinking customs. Tobacco-smoking. Flutes and whistles. Trumpets. Music bows. Drums and drumsticks. Rattles. Dancing. Gambling games. Various kinds of ball games. Toys. Pastimes.

Beer and tobacco form the intoxicants and narcotics in which the Choroti indulge. 273

As I have pointed out in the foregoing, I never had an opportunity of witnessing how the Choroti brew their intoxicating beverages, which they prepare from divers kinds of wild fruit. During the time of my visit to the tribe, such wild fruits were not ripe, so the Indians were reduced to drinking water, more or less muddy. Had my visit coincided with the fruit-harvesting season, then I should have seen that the Choroti are great lovers of beer. Baron Nordenskiöld, who is thoroughly conversant with the beverages and the drinking customs of the Choroti, has shown that the beers that these Indians make from tusca, chañar and maize are tolerably innocent, whilst, on the other hand, algaroba beer is strongly alcoholic, owing to the algaroba fruit being very rich in sugar.[1] The Choroti also make beer out of water melon, but in the literature I have not seen any statement as to the intoxicating properties of water melon beer.

The Choroti's drinking customs Nordenskiöld describes as follows: "During the months of November and December, when the fruit of the algaroba is ripe, there are in consequence in the villages of the Choroti mad drinking carousals, daily orgies, in which the hapless ethnographer

[1] Nordenskiöld (13), p. 89.

[p. 135]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

273 has to take part if he wishes to keep on good terms with the Indians. — »Among the Ashluslay I have taken a hand in several large-scale drinking carousals, and among the Choroti in some smaller ones. It proved an interesting experience, but it required a great deal of fortitude to be able to go through with it. In most villages there is a special [361] place set apart for drinking. There the men begin to foregather about noon, each man bringing his sitting mat and his calabash bowl of a capacity of two to three litres. Huge calabashes of beer are brought by the women. Sometimes the beer is decanted into a large earthenware vessel, out of which it is served. At a festivity where old man Aslù was the host, algaroba beer was handed round to the guests in a genuine European night-chamber, of well-known shape. What lees or dregs there may be in the beer receptacle, the partakers simply fish out with their hands, and then strain between their filthy fingers.

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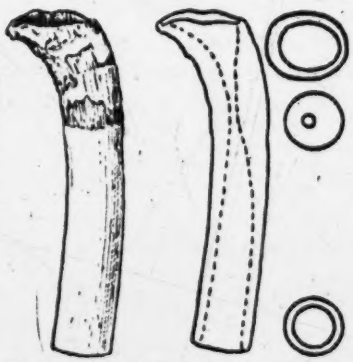

Fig. 153. Tobacco pipe of bamboo. The figure shows the mouthpiece turned downwards. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 228.

»A guest, especially if he has the misfortune of being very popular, is very well treated. He is provided with a sitting mat and a calabash holding two or three litres. When he sits down, all wave to him with the flat of the hand, and he must make a similar response. That constitutes the greeting of welcome. After that, it is a matter of drinking, for here the motto is 'no heeltaps', and one must not be uncivil. When one has managed to get a litre down, without throwing it some more the palm-waving is done. The old men sitting next to one, draw their more or less dirty fingers across one's mouth. This is the height of friendliness. If, after all this, one has to run away for a moment, one must by no means forget to wave the hand to one's neighbours and say 'paa', for if not, one is exceedingly unmannerly. The worst of it is that one must come back, and hold out, right through the feast even, whilst one's hosts are drunk and yelling, making speeches, spitting in the festive bowl, and generally feeling themselves good and hearty. Without giving a wipe to the pipe-stem, one has [276] to smoke, turn and turn about, with dirty, slavering, old men.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

»When the old men have felt themselves properly tuned up, then they have painted my face black with soot and spittle. They have wanted to pull out my eyebrows and eyelashes, and they have laughed my long and ugly beard to scorn, and they have wanted to bore through my ears.

»All during these drinking carousals, when everybody was drunk, I have never heard a hard word spoken; never noticed the slightest quarrel arising. When the Indian is full of his home-brewed beer, he is not pleasant, but he does not get insolent; he belongs to the type of drunkard who wants to embrace everybody, and in whom the manifestations of friendliness become unpleasantly exaggerated. He gets blatantly valiant, and shouts about warlike deeds. He discusses plans of campaigns, but has forgotten all about it when he is sober again. He sings and he is happy.»[1]

The Choroti Indians are inveterate smokers. As the tobacco which these Indians grow and prepare is of a very inferior quality, they are keen on bartering tobacco off the whites. Frequently the Choroti mix their tobacco with shavings of an aromatic tree bark.[2]

Tobacco pipes consist of pieces of bamboo, fig. 153, or wood, figs. 154—161. The latter are straight, that is to say, the longitudinal axis of the tobacco retainer is in a straight line with the longitudinal axis of the stem.[3] The pipes of bamboo are straight, or of a slightly curving bend, fig. 153. Choroti pipes are as a rule made in one piece, figs. 153—161, but composite pipes (pipes with the stem fitted into the bowl) do occur, although they are exceedingly rare.[4]

The pipes have in the forward end, as a rule, a funnel-shaped depression in which the tobacco is stuffed (the tobacco retainer). From the bottom of the funnel the smoke passes through a channel, the diameter of which is only a couple of millimetres in the part nearest the tobacco retainer but usually widens towards the opening of the mouthpiece (see sections, figs. 153—161). In pipes with a wide mouthpiece opening, the latter as a rule is provided with a vegetable fibre filter, which cleanses

[1] Nordenskiöld (13), pp. 89, 91 and 93.

[2] As to Indian conceptions of intoxicating beverages, tobacco and other narcotics, see for example Karsten (5), pp. 28—72.

[3] The Ashluslay, neighbours of the Choroti, possess both straight and angle-bent pipes. In the Ashluslay pipes of the latter kind the longitudinal axis of the tobacco retainer and that of the stem form an angle of about 90 degrees. Nordenskiöld (18), figs. 41—43.

[4] A composite pipe from the Choroti is reproduced and described by Nordenskiöld (21), fig. 8.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

their rattle gourds, whilst the men provided with drums beat them. The girl in whose honour the dance was held was standing motionless and silent at the entrance of the hut reclining against the wall and had to remain so during the whole ceremony. Sometimes, when towards evening she got tired and was on the point of falling asleep, one of the medicine-men came up to her and shook his rattle close to her face as if to keep her awake. The ceremony began in the afternoon and was continued with short pauses throughout the whole evening until midnight. I was informed that as long as the dance goes on the girl need not be veiled, but as soon as the conjuration is finished for the night she must have her face and her whole body well covered. During the whole period that the dance is performed she is moreover obliged to fast, avoiding fish and meat and living only on some light vegetable food.

I may add that all the men who took part in the ceremony were painted on the face in one way or another. Some of them simply had the face coated red with roucou or black with charcoal, whereas others had X-shaped or other patterns painted on the cheeks. The men's faces are always painted in this way at the conjurations of the Indians, and these paintings have a purely magical significance.

The drinking of algaroba beer also forms part of the magical practices at the feast, but it is strictly limited to the men.

The object of all these ceremonies is to protect the girl against the evil spirits, the *möhsek*, by which she is believed to be particularly attacked during her unclean condition. The spirits try to enter into her through the face — especially through those parts where there is a natural opening of the body, such as the eyes, the ears, the nose, and the mouth — and also through the ventral parts, the consequence being, if they succeed in doing so, that she will fall ill and die, or become supernaturally pregnant and give birth to a monster. It is in this way that the Indians account for the birth of those deformed children which they kill directly after birth. To prevent such frightful accidents the girl's head and body are covered after the conjuration is finished for the night. By means of the dancing, chanting, drumming, etc. the evil demons who take an interest in the girl and swarm about her are conjured and rendered harmless. According to the idea of the Indians she is not only protected for the time being against their attacks, but she will also retain a certain power of resistance against them in the future.

The puberty of a girl is not celebrated in all cases among the Choroti with so many ceremonies as in the case just described, but the

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

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Preparations being made for the great drinking-feast among the Choroti. A goat's hide is fixed in the ground so as to form a vessel, in which the beer is brewed.

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Choroti Indians assembled for a drinking-feast under a shady algaroba tree.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI12
Choroti SK6

We have already seen that the most appreciated of these drinks is algaroba beer, which by the Mataco and the Choroti is called *atäs*, by the Tobas again *maplyí*. The tree itself and its fruit is called *oáh* in the Mataco and the Choroti language, in the Toba language *map*. The sacred beer is prepared with the utmost care and with certain religious or magical ceremonies. At this preparation there appears a strict division of labour between men and women. Although the women are not allowed to drink of the beer, they seemingly perform the larger part of the work. They collect the fruit in the forest, carrying it home in their large caraguatá bags, and afterwards mash it in mortars. Some old women start to chew the fruit, mixing it well with saliva, whereupon they spit it out into a goat's hide, fixed in the ground by means of sticks in such a way that it forms a sort of vessel. The goat's hide is used by the Choroti and by the Argentine Mataco, whereas the Tobas and the Bolivian Mataco use a wooden trough for the purpose. Lastly, hot water is poured over the mashed fruit.

These preparations require nearly a whole day. The most essential thing still remains, namely the fermentation, and to effect this is a duty solely incumbent on the men, since women as a rule do not take part in conjurations. The fermentation is sacred, because it means the birth of the good spirit. Now this happens in the night, but night is the time when evil spirits move about. According to the belief of the Indians, the invisible persecutors appear in great numbers in order to prevent the birth of the good spirit and interfere with the drink so that it cannot ferment and is entirely spoiled. Therefore special precautions must be taken for the critical time. The brewing of the algaroba beer for the great festivals during the algaroba season is — especially among the primitive Choroti — a matter that concerns the whole community. Hence, at the approach of night, the men arrive from all houses with their rattle gourds, sit round the hide or trough, and begin to chant a noisy, monotonous song without words, shaking the rattles in the rhythm of their chant. This ceremony is called by the Choroti *nissammaha oáh*, by the Tobas *niapilák map*, and its most conspicuous object is to prevent the spirits from spoiling the beer. Since the new moon is believed to promote fermentation, a moonlight night is preferably chosen for the ceremony. The chant is typical of the Indian conjurations in the Chaco. It is always begun in a loud voice; then the voice gradually dies down, so that the last tones are only heard as a low and distant muttering. Thereupon they start again from the beginning, and so forth. In addi-

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI12
Choroti SK6

tion to the men shaking rattles, one or more Indians are beating drums and chanting. These noisy ceremonies are continued with short intervals during the whole night. When one party of Indians are tired and stop to rest for a moment, they are relieved by another party, since it is considered very important that there should be no interruption in the ceremonies; otherwise they would lose something of their effect. In the early morning the danger is believed to have passed; the fermentation has taken place, and the evil spirits have not been able to approach the drink and spoil it.

Although this negative object of the rites is particularly emphasized by the Indians, they also have a positive object which is indicated by the very expression »hurry on the fermentation». As we have already seen, the fruit of which the drink is made is believed to be animated by a spirit, and it is the same spirit that is active in the fermented, intoxicating beer. The rites described, while they are supposed to keep off evil spirits, are also intended to influence magically the plant-spirit itself and to bring it to its highest point of development, which is marked by the fermentation. This is partly effected through the chanting, the shaking of rattles, and the drumming, partly through the procedure of mixing the mashed fruit with saliva. The saliva really has the property of bringing about fermentation, and this phenomenon is explained by the superstitious Indian as due to the supernatural virtues which this secretion is believed to possess. Even the fact that only *old* women chew the fruit is probably not accidental. Old people have by nature a stronger magical power than the young and their saliva has therefore greater efficacy.

The Chaco Indians not only try to promote the growth of the fruits by shaking rattles and drumming, but also by *dancing*. Thus the Toba dance *Nahót dónnaran* is not only performed in cases of sickness, but also with a view to »hurrying on» the chanar fruit (*niapilák tákkai*). Once I witnessed such a ceremony. The chañar fruit — next to the algaroba the most important of the fruits growing in the Chaco forests — reaches maturity in the month of October and forms the staple food of the Indians during that month. The dance was performed in the following way. The fruit gathered in during the day was spread out on cloths or big hides on the ground outside the houses, where they are generally laid to dry. The dance took place at night. A young man began to dance alone, stamping alternately with his feet on the ground, without using any rattle, and chanting at first in a low voice. Gradually his movements

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

273 has to take part if he wishes to keep on good terms with the Indians. — »Among the Ashluslay I have taken a hand in several large-scale drinking carousals, and among the Choroti in some smaller ones. It proved an interesting experience, but it required a great deal of fortitude to be able to go through with it. In most villages there is a special [361] place set apart for drinking. There the men begin to foregather about noon, each man bringing his sitting mat and his calabash bowl of a capacity of two to three litres. Huge calabashes of beer are brought by the women. Sometimes the beer is decanted into a large earthenware vessel, out of which it is served. At a festivity where old man Aslù was the host, algaroba beer was handed round to the guests in a genuine European night-chamber, of well-known shape. What lees or dregs there may be in the beer receptacle, the partakers simply fish out with their hands, and then strain between their filthy fingers.

[276] [574] [576]

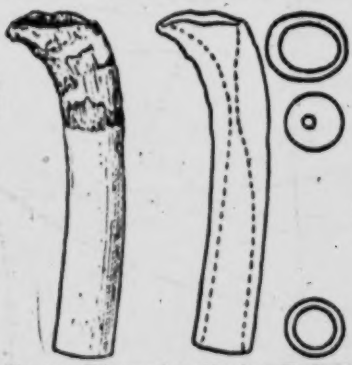

Fig. 153. Tobacco pipe of bamboo. The figure shows the mouthpiece turned downwards. Choroti, Gran Chaco, Bolivia. 1/6. Riksm. 03. 3. 228.

»A guest, especially if he has the misfortune of being very popular, is very well treated. He is provided with a sitting mat and a calabash holding two or three litres. When he sits down, all wave to him with the flat of the hand, and he must make a similar response. That constitutes the greeting of welcome. After that, it is a matter of drinking, for here the motto is 'no heeltaps', and one must not be uncivil. When one has managed to get a litre down, without throwing it some more the palm-waving is done. The old men sitting next to one, draw their more or less dirty fingers across one's mouth. This is the height of friendliness. If, after all this, one has to run away for a moment, one must by no means forget to wave the hand to one's neighbours and say 'paa', for if not, one is exceedingly unmannerly. The worst of it is that one must come back, and hold out, right through the feast even, whilst one's hosts are drunk and yelling, making speeches, spitting in the festive bowl, and generally feeling themselves good and hearty. Without giving a wipe to the pipe-stem, one has [276] to smoke, turn and turn about, with dirty, slavering, old men.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

»When the old men have felt themselves properly tuned up, then they have painted my face black with soot and spittle. They have wanted to pull out my eyebrows and eyelashes, and they have laughed my long and ugly beard to scorn, and they have wanted to bore through my ears.

»All during these drinking carousals, when everybody was drunk, I have never heard a hard word spoken; never noticed the slightest quarrel arising. When the Indian is full of his home-brewed beer, he is not pleasant, but he does not get insolent; he belongs to the type of drunkard who wants to embrace everybody, and in whom the manifestations of friendliness become unpleasantly exaggerated. He gets blatantly valiant, and shouts about warlike deeds. He discusses plans of campaigns, but has forgotten all about it when he is sober again. He sings and he is happy.»[1]

The Choroti Indians are inveterate smokers. As the tobacco which these Indians grow and prepare is of a very inferior quality, they are keen on bartering tobacco off the whites. Frequently the Choroti mix their tobacco with shavings of an aromatic tree bark.[2]

Tobacco pipes consist of pieces of bamboo, fig. 153, or wood, figs. 154—161. The latter are straight, that is to say, the longitudinal axis of the tobacco retainer is in a straight line with the longitudinal axis of the stem.[3] The pipes of bamboo are straight, or of a slightly curving bend, fig. 153. Choroti pipes are as a rule made in one piece, figs. 153—161, but composite pipes (pipes with the stem fitted into the bowl) do occur, although they are exceedingly rare.[4]

The pipes have in the forward end, as a rule, a funnel-shaped depression in which the tobacco is stuffed (the tobacco retainer). From the bottom of the funnel the smoke passes through a channel, the diameter of which is only a couple of millimetres in the part nearest the tobacco retainer but usually widens towards the opening of the mouthpiece (see sections, figs. 153—161). In pipes with a wide mouthpiece opening, the latter as a rule is provided with a vegetable fibre filter, which cleanses

[1] Nordenskiöld (13), pp. 89, 91 and 93.

[2] As to Indian conceptions of intoxicating beverages, tobacco and other narcotics, see for example Karsten (8), pp. 28—72.

[3] The Ashluslay, neighbours of the Choroti, possess both straight and angle-bent pipes. In the Ashluslay pipes of the latter kind the longitudinal axis of the tobacco retainer and that of the stem form an angle of about 90 degrees. Nordenskiöld (13), figs. 41—43.

[4] A composite pipe from the Choroti is reproduced and described by Nordenskiöld (21), fig. 8.

276 the smoke of tobacco oil. Wooden pipes are often decorated with burnt-in
[531] ornament (figs. 155—157 and 159—161), or, once in a while, with carved ornamentation (fig. 161), or mountings of tin.

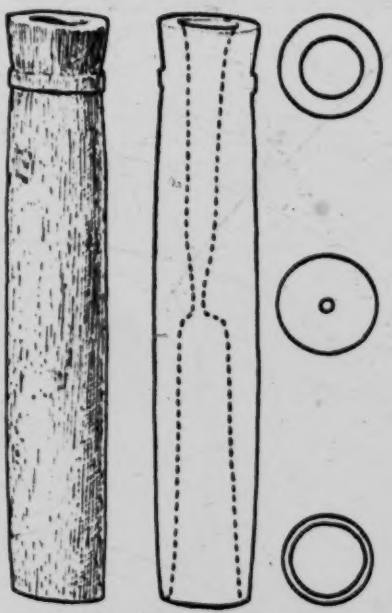

Fig. 154. Yellow wood. 03. 3. 219.

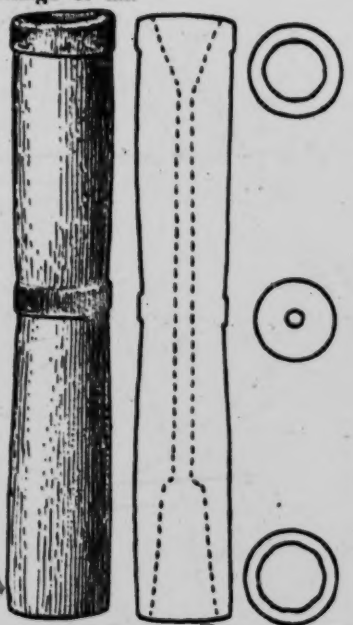

Fig. 155. Yellow wood; the rings carved in relief are coloured dark by burning. 03. 3. 224.

Tobacco pipes of wood. Choroti. Gran Chaco. Bolivia. 2/3. Riksm.

The straight type of pipe much resembles our modern cigar holders, but is nevertheless an ancient American cultural element. Straight tobacco pipes are found in widely separated parts of the New World, and in archæological excavations in North America, pipes of this kind have been found of burnt clay, among other materials, which probably are pre-Columbian.[1]

276 517 The Choroti Indians never smoke whilst working, or otherwise moving about, but keep this form of indulgence for their sociable talks, their meetings, or drinking bouts. No Choroti, when in company with others,

[1] E. g. Holmes (1), pl. CLVI. For the distribution of the straight tobacco pipe in North and South America, see, for example, McGuire (1), and Nordenskiöld (21).

[text continues on p. 140]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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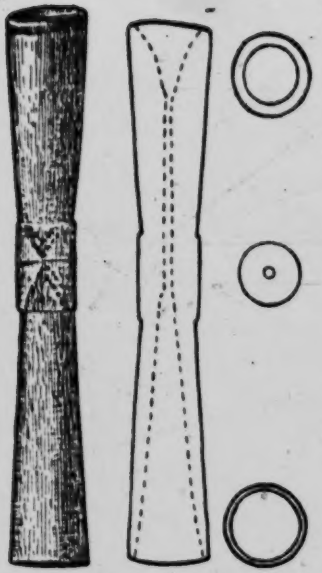

Fig. 156. Reddish-brown wood. Ornament burned in. 10. 3. 143.

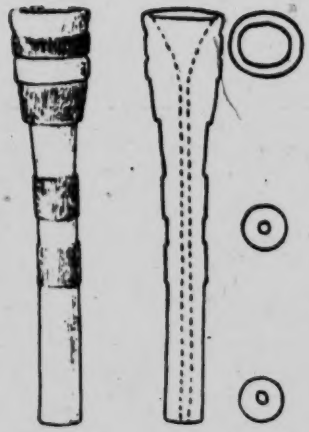

Fig. 157. Yellow wood. Four bands carved in relief, burned dark brown. 03. 3. 226.

Fig. 158. Yellow wood. 03. 3. 229.

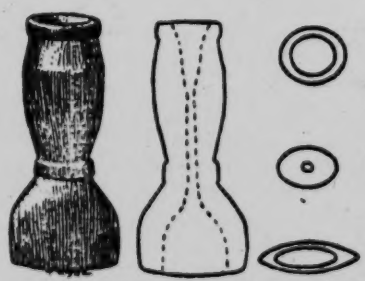

Fig. 159. Reddish-brown wood; the relief carved rings are darkened by burning. 03. 3. 230.

Wooden tobacco pipes. Choroti. Gran Chaco. Bolivia. 2/3. Riksm.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

276 smokes his pipe alone, but lets it pass, by turns, from mouth to
517 mouth. Similarly to other primitive peoples, the Choroti not only take the smoke into their mouths, but also inhale it into their lungs, a method of smoking which apparently gives them great satisfaction.

534 The Choroti are only indifferently gifted for music, and their musical instruments are exceedingly primitive. These consist of flutes and whistles of bone, whistles made from skulls, disc-shaped whistles made of

[276
531]

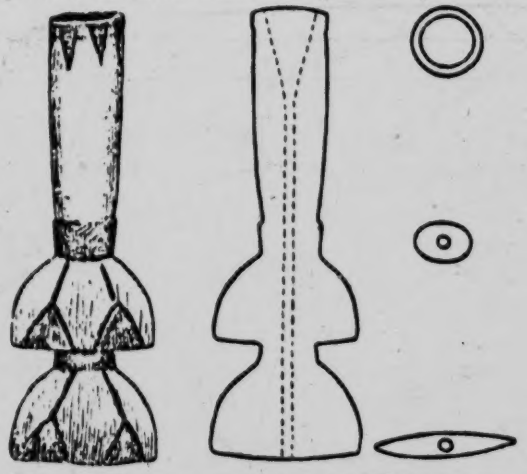

Fig. 160. Yellow wood. Ornament burned in. Riksm. 03. 3. 231.

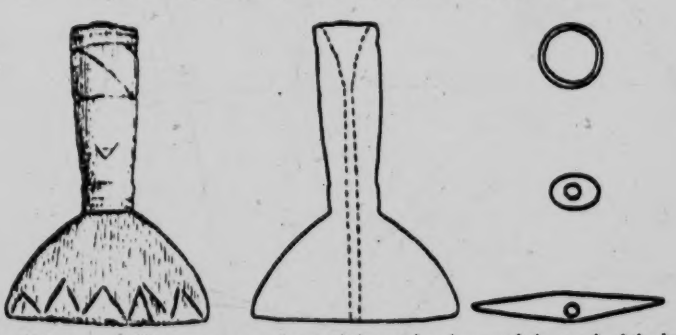

Fig. 161. Yellow wood. The ornament on the mouthpiece and a ring round the mouth of the bowl are burned in. The mark resembling an inverted letter A is carved. The lower ring on the bowl, and the lines that are obliquely issuing from it, are carved and painted red. 03. 3. 232.

Tobacco pipes of wood. Choroti. Gran Chaco. Bolivia. 2/3. Riksm.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
Choroti SK 6

of a ford. Those Chaco Indians who live beside the river, clever swimmers as they are, possess great experience and dexterity in performing such tasks and in fact, no white traveller in the Chaco could easily do without their services. At the fordable place where we crossed to the other side the water was so low that men and animals had to swim only a short distance, our clothes being taken over in a big cow's hide folded up so as to form a sort of vessel. Within half an hour we were all safely on the other side of the river and could continue our journey.

The Bolivian sub-tribes of the great Toba nation inhabit the region between fort d'Orbigny in the south and the village Villa Montes (Mission of San Francisco), situated about twenty leagues to the north, on the left bank of the Pilcomayo. I proposed to visit these Indians later on. For the present my destination was the country of the Choroti which lies about midway between the fort d'Orbigny and the next Bolivian military station on the Pilcomayo, Guachalla. To reach the first Choroti village I had to travel about eight leagues along the narrow path which — in the main following the river but at times retiring far from it — runs from d'Orbigny in a southerly direction. This path is in some places almost obliterated, especially when it leads through the plains, and for the traveller there is the frequent risk of losing it, in which case he may easily go astray in the wilds.

It was in the beginning of December that I first made the acquaintance of the Choroti in their own land. These Indians are now what the Bolivians call *indios mansos* (tame Indians) and there is no danger for a white man in visiting them. The few white settlers on the Pilcomayo have very seldom had any trouble with the Choroti, who — in contrast to the arrogant Tobas — are a peaceful people. A *kilai* (the name given every white man) is therefore kindly received if he himself treats the Indians well and does not arrive empty-handed. So it was with Nordenskiöld during his stay among the Choroti, and so it was with me. It is not possible to live among the Chaco Indians without bringing articles of exchange, and for my own part I had a good supply of such things. Among these were not only shirts, needles, thread, small mirrors, glass beads etc., but above all tobacco which is the article most appreciated by these Indians. Tobacco in fact is a sort of tribute which everybody must pay who travels in the Chaco and has to deal with the natives. Every male member of the small community whose guest I was had to receive his share — of course only a small quantity, just enough to fill the pipe a couple of times — and the gift had to be repeated every day. The Choroti

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

574 only smoke for pleasure, and I doubt whether they ever used the tobacco
276 ceremonially as is the rule among the Indians of tropical South America.
[177] The custom is evidently of comparatively recent origin and has been introduced by the whites.

101 *Choroti* is a Guarani name given to our Indians by the Avas (Chiriguano) and now recognized by themselves. Their proper tribal name, however, is *Jóhuaha* [1]), a word the etymology of which is obscure but which seems to be equivalent to »our own people». Among themselves the Choroti never use any other name than Jóhuaha.

114 In the history of the Gran Chaco, a small and peaceful tribe like the *Choroti* can have played only an insignificant rôle, and the earliest European explorers seem not to have known them. The first author who mentions them is Father Lozano, S. J., who in his book of 1733 calls them Xolotas. But he tells us absolutely nothing about them, and the same may be said of several later travellers who occasionally mention them. The Swedish traveller von Rosen, who made a short visit among the Choroti in 1902, has published a small study of these Indians under the title *The Chorotes Indians of the Bolivian Chaco* (Stockholm, 1904). But v. Rosen's paper is based on very superficial observation and contains several errors which make its ethnographic value rather problematic. [2]) This may partly be due to the fact that v. Rosen never visited the Choroti in their own land on the other side of the Pilcomayo river, but only those families of the tribe which have been in the habit of living for certain periods near the village Caiza, situated just north of Yacuiba, at the easternmost cordilleras of the Andes.

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[1]) Nordenskiöld erroneously gives this name as *Yóshuahá* (*Indianerleben*, p. 28) and Hunt equally erroneously as *Yofuaha* (*El Choroti o Yofuaha, Revista del Musco de La Plata*. Bd. 23. Liverpool, 1915). The Indians themselves most clearly pronounce their name *Jóhuaha*, with the accent on the first syllable. The f-sound is lacking in the Choroti language, as in the languages of many other South American Indians.

[2]) Thus, when v. Rosen says that »polygamy only occurs among the rich, and the caciques have quite a number of wives», this sentence alone contains three mistakes. First, the Choroti are strictly monogamous, any form of polygamy being prohibited by their social morality and their women, who are extremely jealous; secondly, there are no »rich» people among the Choroti, all being equally rich or equally poor; and thirdly, although we may speak of caciques or chiefs among them, these have very limited power and do not distinguish themselves from the rest of the tribe in the way v. Rosen's statement seems to indicate. — Evidently v. Rosen has confounded the Choroti chiefs with those of other and more advanced tribes, probably the Avas (Chiriguano) or the Tobas.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

XV.

Means of Indulgence.

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C
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The Tobacco Pipe (Map 14)

The Indian tribes here dealt with are keen smokers, and cultivate tobacco themselves.

Chewing coca is unknown to them.

In the following table I give a résumé touching the smoking of tobacco and the chewing of coca in the parts of S. America visited by me.

	No. on the map.	Cultivation of tobacco	Smokers.	Cigarette Smokers.	Pipe Smokers.	Coca chewers.	Tobacco used only as a medicament.
Ashluslay	2	+	+		+	—	—
Atsahuaca		?	?	?		?	?
Aymara						+	—
Baure		+	+	+	—	—	—
Cavina		?		?	—	+	—
Ch[illegible]obo		+		—	—	—	+
Cháma		-?	—	—	—	—	?
Chané		+	+	+	—	—	—
Chimane	24	+	—	—	—	—	+
Chiriguano		+	+	+	+	—[1]	—
Choroti	•	+	+	—	+	—	—
Churápa		+	+	+	—	—	—
Guarayú (Guarayos)	40	+	+	+	+	—	—

[1] Coca chewing has been introduced of late among a small number.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

	No. on the map.	Cultivation of tobacco	Smokers	Cigarette smokers	Pipe smokers	Coca chewers	Tobacco used only as a medicament
Guarayú (Pauserna)		+	+	+	—	—	—
Huanyam		+	+	+ ?	—	—	—
Huari		+	+	+ [1])	—	—	—
Itonama		+	+	+	—	—	—
Mataco	6	+	+	—	+	—	—
Quichua		—	—	—	—	+	—
Siriono	51	—	+ ?	—	+ [2])	—	
Tambopata-Guarayo		+	—	—	—	—	?
Tapiete	3	+	+	—	+	—	—
Toba	7	+	+	—	+	—	—
Tsirakua		?	?	?	?	?	?
Yamiaca		?	?	?	?	?	?
Yuracáre		+	—	+ [3])	—	—	+ [3])

The Choroti and the Ashluslay smoke pipes, as the table shows. The pipe is also known to the following tribes, besides those given in the résumé: (52) Mocovi[4]), (x 4) Payaguá[4]), (8) Lengua[4]), (11) Chamacoco[4]), (12) Mbayá[4]), (21) Cainguá[4]), (13) Karajú and (50) Savajé[4,8]), (46) Conibo[8]), (10) Araucanians[4]), (26) Tehuelche[4]), (63) Tapuya[8]), (37) Motilon[7]), Arecuna and Patamona[8]).

[1]) Cigars.
[2]) According to CARLÚS, p. 282. »No para fumar, sino para humear.«
[3]) Not great smokers. Tobacco chiefly used as a medicament.
[4]) NORDENSKIÖLD (3 B)
[5]) CHILE (1), Vol. 2, Pl. 27, fig. 12.
[6]) ROUTLOX BARO, p. 238, 241; PISO et MARCGRAV, 274. p.
[7]) HOLINDER (2), p. 37.
[8]) KRAUSE, p. 350.
[9]) G. M. Collection Liljewalch-Thulin. Not marked on the map.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK5
Ashluslay SK5

000 Archaeological excavations have unearthed pipes in (U) Patagonia[1]), in (V), (Z) Chile[2]), at several places in (A), (E) N. Argentine[1]), in (S) Rio Grande do Sul[3]), (m) Parana[1]), (1) San Paulo[1]), (b) Alagoas[1]), (k) Bahia[1]), (x) Surinam[1]), (R) on the L. of Valencia in Venezuela[1]), on the Island (Y) of Koati on the L. of Titicaca[3]) at (W) Tunja[1]) and (T) Antióquia[1]) in Columbia and at (Ä) Caipipendi (Ö) Tarupayu in S. Bolivia and at (H) Buenos-Aires[5]).

As we see, the tobacco pipe has a considerable distribution in S. America, and is probably a very old cultural element there. This holds good especially of the simple tubular pipes in common use among the Choroti and the Ashluslay.

In the west of S. America, in the old culture zone, pipes have been found only in (E), (A) N. Argentina and on (Y) the Island of Koati on the L. of Titicaca. No pipes have been found in the old graves on the coast of Peru. Smoking was probably unusual in Peru, although tobacco was cultivated there. However, it seems to have been used occasionally as snuff. The medicine men employed tobacco to induce ecstasy[4]). It is therefore, as we see, not to be assumed that the Chaco Indians learnt smoking from the cultural tribes of the Andes.

A For *cleaning the pipe* the Ashluslay and the Choroti use
C specially prepared *little pointed sticks*. I have not seen them
276 elsewhere. Like the Mataco they also make use of a filter of plant fibres in their pipes, of which I have seen no mention as regards other Indian tribes. The Chaco Indians occasionally mix their tobacco with a fragrant bark.

The Ashluslay and the Choroti have many different types of pipes, some of which I have depicted in earlier works. It is impossible to say whence these types derive.

[1]) Nordenskiold (3 B).
[2]) Guevara (2).
[3]) Bandelier, Pl. 77.
[4]) v. Tschudi, p. 131. with bibliography
[5]) Ameghino Vol. 1, p. 205.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

and 40). Miss Agnes Branting, who has kindly examined the textiles here reproduced, found the frontlet in fig. 40 especially interesting, as similar fillets are woven by the peasantry in very many provinces of Sweden, for instance Scania, Halland, Wermland and Helsingland. Miss Branting writes on this matter as follows: »Fillets of this kind are made without any other implement than just any sort of object to which the yarn can be attached, say a weighted pincushion held on the knee. The weaving is begun from the centre of the fillet by crossing one yarn over another; for each turn a yarn is added (from a number fastened with pins) on either side. When the edge yarn has been reached, this is turned inwards, and the plaiting then proceeds from the edges towards the centre. This gives a certain firmness and compactness to the edges, and makes the middle portion slightly thinner, as may be noticed if looked at against the light.»[1]

Fig. 38. Legging, of deer-skin with yellowish-brown hair-covering remaining. Worn for protection against thorny plants. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 383.

Sometimes the frontlets are decorated with snail-shell spangles, sewn on, although such pieces of magnificence as the frontlet here shown in fig. 41 are very rare. From fig. 42 can be seen the way this frontlet is meant to be worn. These very decorative snail shell spangles are made from the shells of a large, white land snail (Borus oblongus, fig. 43), common in the Chaco. The Choroti do not themselves make these snail-shell spangles, but obtain them through barter from other tribes.

Narrow frontlets of woollen-yarn (see fig. 30: the 3rd and 4th men from the left) or birdskin (see figs. 17 and 30: the boy who is fifth from the left) are of very common occurrence; less frequently seen are frontlets made from palm leaves, some of which are provided with chin straps, so as not to slip easily off the head (fig. 44).

At dances and other festive occasions, the men are fond of wearing particularly handsome, broad frontlets or head ornaments of stiff or downy

[1] Compare with this a method of hand weaving described from the Choroti by Erland Nordenskiöld. Nordenskiöld (13), p. 111.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

with the tail skin of a lizard. The blade and handle form an obtuse angle, and the edge has been ground on the outer side of the angle. This peculiar shape of knife corresponds to the shape of wooden knives that have been found in ancient Indian graves on Puna de Jujuy and in Quebrada del Toro.[1]

Fig. 145. Rope, of bast. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 244.

Fig. 146. Knife with one-edged blade of soft iron, and handle of wood, covered with lizard skin. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 189.

Fig. 147. Awl, consisting of the right ulna of some large feline, probably puma. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 183.

The Choroti also use wooden knives, resembling broad-bladed chisels.[2] Knives of this shape, which the Choroti now also make of iron, are principally used for cutting up fish, or for opening and dividing pumpkins, water melons, and other kinds of fruit. For cutting up meat, sharp-edged cane splinters, or — and nowadays most generally — iron knives, are used. As I have previously mentioned, the Choroti also use the sharp-toothed jawbones of the palometa fish (Serrosalmo sp.), as knives for hair-cutting, fig. 84.

[1] See, for example, von Rosen (10), figs. 59, 127—131.

[2] Nordenskiöld (11), figs. 12 and 13.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

other Chaco tribes and from Guiana[1]). As regards the Chaco this custom is mentioned by SÁNCHEZ LABRADOR from the Mbayá[2]).

A C 287 301

Leather-making.

The Choroti and Ashluslay do not understand the art of tanning. They show skill, however, in making leather soft by scraping. I did not observe any point of anthropogeographical interest in their method of preparing leather.

A C 287

[1]) GORJE (1), Pl. 3, 1, 2. Ojana.
[2]) Vol. 1, p. 214.

411 with the grain of the wood, and these point to the possibility that the casing may be concealing some defect in the stave. There is, however, nothing which prevents the casing on this bow from being, at the same time, an instrument of magic and a practical means of reinforcement.

411 The bow string, which consists of two, three, or more strips of skin
284 (usually deerskin),[1] is often twice the length of the bow (see figs. 90, 95
● [283] and 96). One end of the string is fixed with a hard knot to one of the bow ends fig. 93 a). This end of the bow is pressed on the ground, and then the stave is given a slight bend — with the help of the knee — and the string is wound on to the upper bow end, in the way seen in figs. 92 and 93 b. The spare end of the string is then tied along the outer side of the bow, as seen in fig. 90. This figure shows a comparatively well-made Choroti bow, without pared-down string-holds, or windings for holding the string in position, and with the string put on in the proper way. On the other hand, fig. 91 shows a bow with string-hold windings and a string badly put on. In shooting, the Choroti generally hold the bow so that the end wound with the loose end of the string points downwards (figs. 90, 91 and 96).

411 Even when the bow is »at rest» (that is to say, when the string is not much tightened), the middle part of the string, owing to the said curving of the stave ends, will be at a certain distance from the stave, which makes it possible to use the bow without first tightening the string. But if there is time for shortening the string, this is almost always done. The Choroti shorten and lengthen the bow string, in the same way as is done by the Chiriguano on their bows (see p. 208).

For the protection of the wrist from the blow of the string, the Choroti sometimes use broad wrist guards of leather.[2]

The arrows used by the Choroti are, as a rule, tipped with some hard,
[177] heavy wood (figs. 97—103), but iron arrow-heads (figs. 104—106) are more and more coming into use. Occasionally, the fore end of a wooden arrow-head may be fixed into the marrow cavity of a sharpened piece of bone. Such bone-tipped arrows are, however, very rarely met with among the Choroti; for my own part, I failed to acquire more than a single

[1] The Choroti also use bow strings made of caraguatá fibre; Nordenskiöld (11), p. 36. I never myself, however, saw any bow strings of that kind.
[2] Nordenskiöld (11), p. 43.

[text continues on p. 94]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

thread is wound on and fastened. Probably this thread,[1] was used for securing the bait so that it should not slip off the barbless hook. The line, which consists of three-ply yarn, is 4.4 m. long. [226]

When a fish has been caught, it is killed with small, round-sectioned clubs of some hard and heavy kind of wood (fig. 120), and then strung on a cord, which, by means of a wooden needle (fig. 121), is threaded through the head of the fish, being passed through its eyes. The fish-festooned cord is carried round the fisherman's waist. This is a safe and handy way of carrying the catch whilst continuing fishing operations, swimming or wading. When a collected catch of fish is to be transported [286]

Fig. 117. Enlargement of the net in fig. 116. 2/3.

home to the village, the fish needle and cord also come in very useful. The implement here shown is from the Toba, as the Choroti specimen which I brought home (Riksm. 03. 3. 243) is now lost. The needle in the implement here reproduced probably consists of palo mataco, or quebracho, and has a length of 380 cm and a diameter of 0.5 cm. The cord, however, tapers towards the ends, its extreme points being only a few millimetres in thickness. One end of the cord is bent back so as to form a loop. Through this loop, and through the eye of the needle, a thinner caraguatá string has been passed, several turns, and with this string the loop has been wound, in the way seen in the picture. The specimen here shown is meant for carrying large-sized fish, but these implements are also to be found of much slenderer dimensions. [824] [283]

[1] I have no notes concerning the purpose of this thread.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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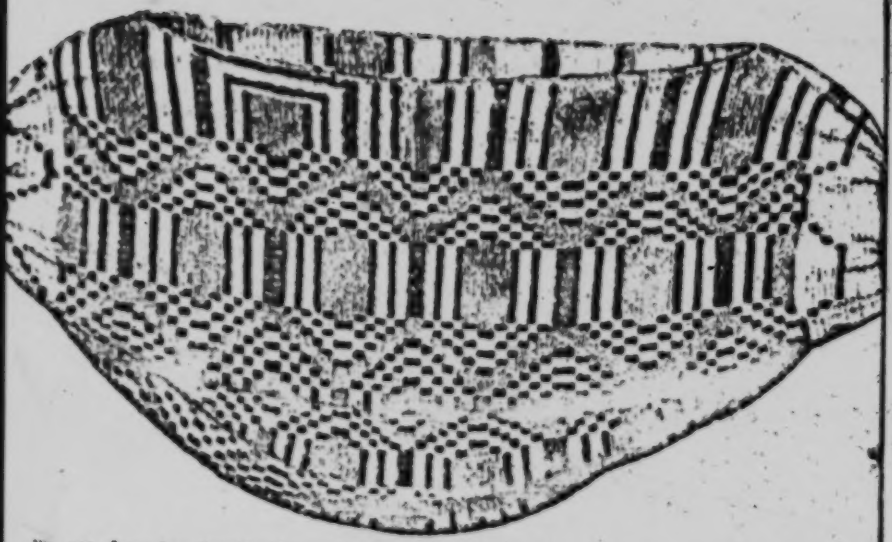

Fig. 135. Large bag, knitted of brown, black and yellowish white (natural colour) caraguatá fibre yarn. Choroti. Gran Chaco, Bolivia. 1/2. Riksm. 03. 3. 134.

smaller caraguatá bags of the shape seen in figs. 137 and 138. These bags are carried by a string or narrow strap laid over the shoulder (see the man with a bow, fig. 96) or tied to the belt, and in them are kept a variety of articles that the Choroti men always like to have about them, such as fire-drilling sticks, tinder boxes, awls for blood-letting, colours for painting of the face, etc. [482]

The caraguatá yarn is spun, without the aid of a spindle, only by twisting the fibres (of Bromelia serra) against the thigh with the flat of the hand. Some of the yarn is dyed with vegetable dyestuffs in order to produce variegated patterns in the knitting (see figs. 135—139). For the knitting, eyed needles of hard wood (fig. 140) are used. Similar needles of wood or bone are also used for sewing. Among the Choroti I have seen men's bags which had been knitted of woollen-yarn with long cactus spines, used as knitting needles (fig. 141). The woollen-yarn bag here reproduced is ornamented with red, brown and grey

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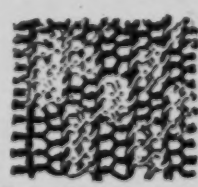

Fig. 136. Enlargement of the knitting of the bag in fig. 135.

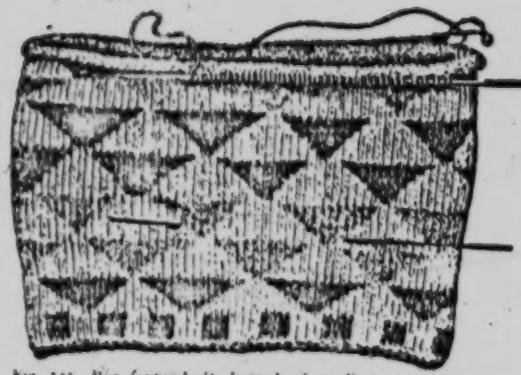

Fig. 141. Bag (unfinished), knitted of woollen yarn, with two cactus spines used as knitting needles. The pattern consists of red, brown and grey triangles and squares on a greyish white ground. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 143.

Fig. 142. Distaff, with wooden spindle and a spherical whorl consisting of the hard shell of a fruit. Left-spun cotton yarn is wound on the spindle, near its middle. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 10. 3. 51.

Fig. 143. Distaff, with wooden spindle, and a plano-convex whorl of bone. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 140.

triangles and squares on greyish-white ground. It is probable that the Choroti have learnt the art of knitting through having been in contact with more cultured tribes.

From their herds of sheep the Choroti obtain all the wool they need for manufacturing mantles, loin cloths, ponchos, fillets, bags, etc. Wool, as well as cotton, is spun with distaffs of the Bakairi type[1] (figs. 142 and 143). The spindles of the distaffs are of wood, with a small knob at the top end for fixing the wool. The spindle is always thinnest at the upper end, and increases in thickness downwards, attaining its greatest thickness not far from its bottom end. The spindle whorls consist of various materials, such as fruit rinds, bone, earthenware, etc. I have even obtained a Choroti distaff with a stone whorl (Riksm. 10. 3. 50), although this is a material which is extremely rare on the

[1] For South American spinning implements and their classification see Frödin and Nordenskiöld (I). 10°. — v. *Rosen*. II.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

283 Chaco, a circumstance I have pointed out in the foregoing. At its thickest part, the diameter of the spindle should be somewhat larger than the diameter of the hole through the whorl. The thinner end of the spindle is passed through this hole, and the whorl is then slid downwards until it gets fixed on account of the thickness of the spindle (see fig. 143). If the hole has happened to have been made too large, so that the whorl would slip off, the thickness of the spindle immediately below the whorl is increased by the application of a heavily waxed binding (see fig. 142).

Fig. 144. Knife-like weaving implement (batten) of hard wood Choroti. Tiran Chaco. Bolivia. 9.9. Riksm. 10. 3. 91.

286 Personally I have not seen the Choroti do any weaving, but from this tribe Nordenskiöld has described a very primitive method of fillet weaving: »For a loom, the woman used her own body; the fillet she was weaving was fastened to her big toe, and her hand she used as a batten. In this way she was weaving. the fillet without using any other implement than her extremities.»[1]

For all that, the Chorotis do possess weaving implements, which, among other things, is evident from the weaving batten reproduced in fig. 144. It is carved in one piece out of some hard, heavy wood. The transverse section of the handle is oval, and the blade has two rounded edges.

283 The Choroti make excellent ropes of bast (fig. 145), by twining. One such rope, which I bartered off them, is 11.74 metres in length. At one end of it there is a running noose, and it has probably been used as a lasso.

412 439 At the time when I visited the Chaco, iron was still of such rarity that it was but seldom I saw an iron knife among the Choroti. We had brought with us, as articles for bartering, long, Argentine knives, and with them the Indians were highly delighted. These knives were not used by the Choroti for carving wood with, but principally as carving instruments in cutting up meat.

412 The Choroti knife, which is reproduced in fig. 146, is a very primitive tool, with a one-edged blade, about 1.5 mm thick, of untempered sheet-iron. The upper part of the blade is wedged into a partly cleft wooden handle, which is covered

[1] Nordenskiöld (13), p. 111.

[should be Choroti. -Analyst]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

with the tail skin of a lizard. The blade and handle form an obtuse angle, and the edge has been ground on the outer side of the angle. This peculiar shape of knife corresponds to the shape of wooden knives that have been found in ancient Indian graves on Puna de Jujuy and in Quebrada del Toro.[1]

Fig. 145. Rope, of bast. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 244.

Fig. 146. Knife with one-edged blade of soft iron, and handle of wood, covered with lizard skin. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 189.

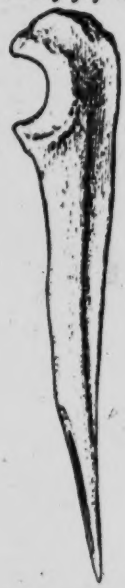

Fig. 147. Awl, consisting of the right ulna of some large feline, probably puma. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 183.

The Choroti also use wooden knives, resembling broad-bladed chisels.[2] Knives of this shape, which the Choroti now also make of iron, are principally used for cutting up fish, or for opening and dividing pumpkins, water melons, and other kinds of fruit. For cutting up meat, sharp-edged cane splinters, or — and nowadays most generally — iron knives, are used. As I have previously mentioned, the Choroti also use the sharp-toothed jawbones of the palometa fish (Serrosalmo sp.), as knives for hair-cutting, fig. 84.

[1] See, for example, von Rosen (10), figs. 59, 127 131.
[2] Nordenskiöld (11), figs. 12 and 13.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

make the throw with the right hand alone, leaving the left free to steer or direct the boat.»

In the mountainous districts and on the Peruvian coast it was in part no doubt the lack of wood suitable for making bows that made this a rare weapon, but also in part the advantage of having the left hand free while using the throwing stick.

The bow (Fig. 4) that is used by the Indians dealt with here, is very poor in comparison with the bows used by most of the Indians inhabiting N.E. Bolivia. The transverse section shows a very varying form. The two ends of the bow are sharpened to a point, and are not provided with notches to hold the string. Bows of this sort, without notches, seem to belong to a very old cultural phase in S. America, for we only find them in the extreme south, and among a small number of very primitive peoples in Bolivia and Brazil.

PATER SCHMIDT mentions the following tribes that have bows ending in a simple point without notches for the string: Botokudo, Bugre, Chamacoco, Sapuki, Mataco, Toba, Angaité, Payaguá, Mbayá (Kadiuéo), Siriono, Pampas Indians, Miraña, Yauaperi and Uaŝmiri[1])

A few tribes have very indistinct notches at the end of the bow.

To the tribes enumerated by PATER SCHMIDT I can add, on the basis of archaeological material, the Indians in the Puna de Jujuy in Argentina[2]).

The bow-strings of the Choroti and Ashluslay Indians are made partly out of caraguatá fibres, partly out of strips of skin. Bowstrings of animal material are only found among the Indians in southern S. America as far north as the Chaco. (Map 2). In tropical S. America such bow-strings are unpractical and rare. Bow-strings of tendons or strips of skin

[1]) PATER SCHMIDT, p. 1033.

[2]) LEHMANN-NITSCHE (1) Pl. 2, fig. 3; pl. 3, fig. 16.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XXV.

Miscellaneous Handicrafts.

The manufacture of rope and string and the spinning of yarn.

In conjunction with FRÖDIN I published a short time ago a work on the twisting and spinning of yarn in S. America. Those who are interested in these branches of Indian handicrafts I beg to refer to this work.

We there showed that, broadly speaking, two methods of spinning can be distinguished in S. America. These we called the Bakaïrí and the Bororó methods. We indicated also the occurrence of some varieties of these methods.

We described the spindle in use among the Bakaïrí as follows: — The typical Bakaïrí spindle is characterized by a spindle rod, the lower end of which is thicker and which is more or less truncated. As a rule it is not very carefully made. The whorl is put onto the rod from above and, consequently, cannot slip off when the spindle is held in a vertical position. The whorl-disc as a rule is near the thick, lower end. The upper end is provided with a slit or a hook, or it may be quite smooth.

We characterized the Bororó spindle as follows: — The Bororó type is characterized by its carefully carved and polished rod being spool-shaped. It is usually made of black palm-wood, so-called «Chonta». The spinning-whorl is generally very near one end of the rod and is put on the rod from below. As this spindle is always employed in a more

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

or less horizontal position, the rod has no need of a thicker end, like that of the Bakaïrí spindle, to prevent the slipping off of the whorl.

As might be expected in this method of spinning, this type of spindle is never, as is often the case with the Bakaïrí spindles, provided with hooks, knobs, etc. at one end.

The Choroti and Ashluslay have typical Bakaïrí spindles which are always provided with knobs at the upper end. On Map 35 I have indicated the distribution of these spindles in accordance with the work of FRÖDIN and myself.

Spindles of the Bakaïrí type are met with among the following tribes:

(28) Bakaïrí, (28) Kamayurá, (28) Mehinakú, (28) Aukuku, (28) Nahuquá, (28) Suyá, (28) Trumaí, (28) Kustenaú, (28) Auetó, (77) Tapirapé(?), (20) Paressi-Kabiši, (15) Kayapó, (13) Karajà, (50) Šavajé, (4) Chiriguano, (21) Cainguá, (8) Lengua, (12) Mbayá, (75) Angaité, (75) Sanapana, (3) Tapiete; (5) Chané, (6) Mataco, (1) Choroti, (2) Ashluslay, (16) Guató, (23) Churápa, (41) Guarayú, (Pauserna), (38) Tupinambá (55) Kalina, (31) Ojana and Trio, (47) Patamona, (47) Makusi, (47) Arecuna, (47) Wapischana, (78) Caribs of Trinidad, (79) Yekuaná, (80) Guaiqueri, (81) Indians on the coast of Guayana (82) Arawaks on the Saramacca, (36) Ijca, (36) Köggaba, (35) Chimila, (37) Motilon, (54) Guahibo, (68) Omagua, (86) Yahua, (69) Ipurina, (70) Piro, (71) Sipibo, (46) Conibo, (72) Atsahuaca, (73) Cháma, (18) Quichua, (19) Aymara, (26) Tehuelche, (7) Toba, (87) Mestizos in N. Argentina, (88) Indians of Tacna, (74) Tamanaco and (89) Indians on the Calilegúa.

In the course of archaeological excavations spindles of the Bakaïrí type have been discovered in the temple of the Sun-maiden at (A) Pachacamac on the coast of Peru, in the (D) Puna de Jujuy and in the (E) Diaguita district of N Argentina.

We see that the Bakaïrí spindles are widely distributed in S. America. In all likelihood this type of spindle came

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

originally from the mountain area of civilization, as FRÖDIN and myself have endeavoured to show. I shall return to this problem later on.

The spindles of the Choroti and Ashluslay are, as was mentioned, provided at the upper end with a knob round which the wool to be spun is fastened. This invention does not seem to be a product of the mountain civilization, but to have been one of the few elements of civilization which the Indians of the Chaco have received from the northern and western parts of S. America. Probably it came to the Chaco with the Guarani Indians, since the Arawaks at Mojos north of the Chaco have spindles of the Bororó type. It is indicated on the map which tribes in S. America have spindles of this kind. There are some S. American tribes whose spindles are provided with a hook instead of a knob at the upper end.

Sewing, or the use of the eyed needle.

The Indians of the Chaco have plainly learnt the use of the eyed needle from people of the the n ountain civilization. RIVET and VERNEAU[1]) have given a summary of the places where eyed needles have been found in archaeological excavations. From this it appears that, previous to its introduction by the whites, the eyed needle in America had a markedly western distribution. (Map 36). RIVET and VERNEAU mention the following places where metal needles have been found: — Neighbourhood of Cañaris, Ecuador, Piura, Chuquitanta, Marquez, Ancon, Paumalca (valle de Chiclayo), Trujillo, Huadquiña and Choquequirao in Peru (K, A), (I) Tiahuanaco, (I) Titicaca Island, (G) Queara, (Z) Tocarji and (Z) Asnapújio[2]) in Bolivia, (D) Casabindo, (E) Santa Maria, (E) La Loma (not far from Puerta del Belen) in Argentina. Rivet and VERNEAU[3]) quote, furthermore the following places for bone needles: — (L) Cañar (Ecuador), (E) La Paya (N.

[1]) (4) p. 284.
[2]) Only a few of these places are shown on the map.
[3]) (4) p. 252.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

It is also used by the Tsirakua of the northern Chaco in Caraguatá mantles and, no doubt, belongs to the elements of culture which the Indians of the Chaco received from the north or east.

In all likelihood techniques 4, 5, and 6 were found among the Mbayá in the 18 th century. SÁNCHEZ LABRADOR[1]) writes as follows of bags in this tribe: — «Hay unas de anillos ú ojos grandes, y otras de pequeños y algunas del todo cerradas.»

The existence in the Chaco of so many kinds of knitting is probably connected with the cultural influence from the area of civilization in western S. America. Proof of this can however, only be adduced after study of the specimens of the kinds of work found there. I am afraid that plain specimens of knitting, not possessing aesthetic value, are not always brought up to the light at the excavations in the coast lands of Peru. On this account it is important that future expeditions should collect such material in those parts. The plundered excavation areas must certainly have still a great deal to offer in this respect.

Plaiting of rope and string.

A C 283

Both the Ashluslay and the Choroti have some rather peculiar plaited bands, strings, etc. It being impossible to draw any anthropogeographical conclusions from these at present, owing to the lack of comparative material, I would prefer not to deal with them here.

Brush and Broom-making. [a]

There is no work on Indian brooms.[b] As I have already remarked, they are a culture-element which the Indians received from the area of civilization in western S. America.

[1]) Vol. I, p. 271.

[a] [i.e. tassel-making. - Au/rst]

[b] [i.e., tassels. - Au.]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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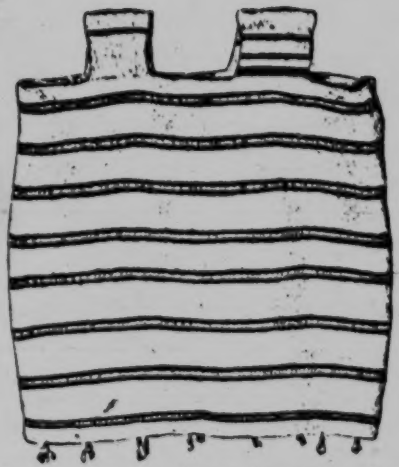
[714]



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[284]

Fig. 36. Mail shirt, knitted of caraguatá string. Worn principally as a protection against arrows. Choroti. Gran Chaco, Bolivia. 1/4. Rikssm. 03. 3. 382.

It is worthy of note that the Choroti also manufacture another protective garment out of caraguatá, namely a sort of stockings. This footgear is put on for wading (in fishing), as a protection against the teeth of the terribly sharp-biting palometa fish.[1]

To protect the legs from spiny plants, I have seen Choroti using a kind of long deerskin leggings, laced on with leather straps. The legging here reproduced in fig. 38, which has a height of 71 cm, reached well above the knee of its wearer. Some of the Choroti make use of sandals,[2] but I have myself never seen them worn by these Indians.

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[714
286]

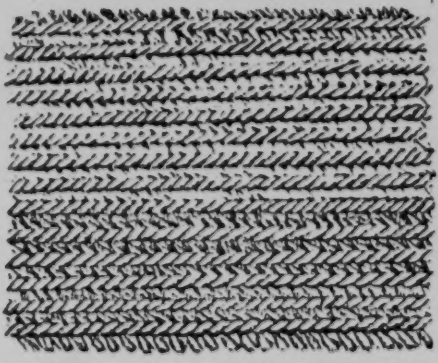

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Fig. 37. Enlarged detail of mail shirt, fig. 36. Natural size.

The men generally wear their hair of a medium length i. e., down to the shoulders, or the shoulder blades (figs. 16—18, 39 and 83) — but I have also seen Choroti with hair so long as almost to reach the waist. The hair is usually tied round with a woollen frontlet (fig. 39), or a frontlet of palm leaves (fig. 24), or birdskin (fig. 17), but it may also be worn loosely hanging down (fig. 53). Frequently the hair is tied into a brush-like bunch at the nape of the neck (fig. 39). Woollen frontlets are generally furnished with simple, tasteful, ornamentation (figs. 39

[1] Nordenskiöld (13), p. 110.
[2] Nordenskiold (11), pp. 113, 114.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

and 40). Miss Agnes Branting, who has kindly examined the textiles here reproduced, found the frontlet in fig. 40 especially interesting, as similar fillets are woven by the peasantry in very many provinces of Sweden, for instance Scania, Halland, Wermland and Helsingland. Miss Branting writes on this matter as follows: »Fillets of this kind are made without any other implement than just any sort of object to which the yarn can be attached, say a weighted pincushion held on the knee. The weaving is begun from the centre of the fillet by crossing one yarn over another; for each turn a yarn is added (from a number fastened with pins) on either side. When the edge yarn has been reached, this is turned inwards, and the plaiting then proceeds from the edges towards the centre. This gives a certain firmness and compactness to the edges, and makes the middle portion slightly thinner, as may be noticed if looked at against the light.»[1]

291 302

Fig. 38. Legging, of deer-skin with yellowish-brown hair-covering remaining. Worn for protection against thorny plants. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 383.

Sometimes the frontlets are decorated with snail-shell spangles, sewn on, although such pieces of magnificence as the frontlet here shown in fig. 41 are very rare. From fig. 42 can be seen the way this frontlet is meant to be worn. These very decorative snail shell spangles are made from the shells of a large, white land snail (Borus oblongus, fig. 43), common in the Chaco. The Choroti do not themselves make these snail-shell spangles, but obtain them through barter from other tribes.

Narrow frontlets of woollen-yarn (see fig. 30: the 3rd and 4th men from the left) or birdskin (see figs. 17 and 30: the boy who is fifth from the left) are of very common occurrence; less frequently seen are frontlets made from palm leaves, some of which are provided with chin straps, so as not to slip easily off the head (fig. 44).

At dances and other festive occasions, the men are fond of wearing particularly handsome, broad frontlets or head ornaments of stiff or downy

292 302

[1] Compare with this a method of hand-weaving described from the Choroti by Erland Nordenskiöld. Nordenskiöld (12), p. 111.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

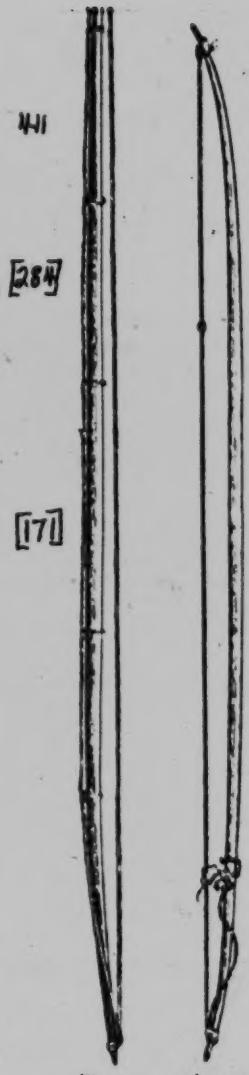


Fig. 90. Riksm. 03. 3. 245.

Fig. 91. Riksm. 03. 3. 256.

Bows. Choroti. Gran Chaco. Bolivia. 1/8. In shooting, the bows are held in the position shown in the figures, i. e., with the part of the stave downwards, on which the string is wound.

Among the Choroti, as among their neighbouring tribes with the exception of the Chiriguano, the bow staves are sometimes made with a bend at the ends towards the string, these bends having been produced *before* the stringing of the bow (see fig. 91). How the bends are effected among the Choroti I cannot say, but it is probable that they, like the Lengua, for this purpose use fire.[1] According to Grubb, the Lengua shape the staves also with axe or knife so the stave ends assume the bent shape required. This can, of course, only be done by making the ends strongly tapering, as then they are more easily bent. The direct carving or cutting out of a bow stave with bent ends from a piece of woods is certainly possible, but to my thinking the stave would break at the very first attempt at stringing the bow, because in such a case the grain of the wood would not be following the bend of the stave.

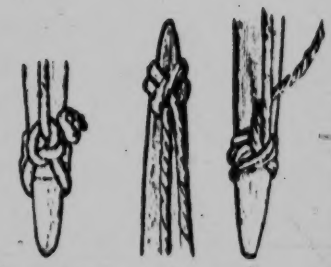
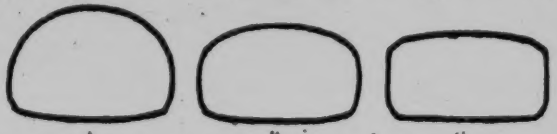


Fig. 93. Lower string hold, and string noose, of the bow, fig. 90.

a. b.

Fig. 95. Upper and lower string-holds and string nooses of the bow, fig. 91.

By giving the ends of a bow stave an inward bend in the way done in certain Chaco bows, the greater part of the stave — even when stringed — is free from any strain, except when the string is being



A. B. C.

03. 3. 250. 03. 3. 256. 03. 3. 257.

Fig. 94. Transverse sections at middle of the Choroti bow staves. Gran Chaco. Bolivia. 1/1. Riksm.

[1] Grubb (1), pp. 76 and 77.

411 with the grain of the wood, and these point to the possibility that the casing may be concealing some defect in the stave. There is, however, nothing which prevents the casing on this bow from being, at the same time, an instrument of magic and a practical means of reinforcement.

411 The bow string, which consists of two, three, or more strips of skin
● 284 (usually deerskin),[1] is often twice the length of the bow (see figs. 90, 95
[283] and 96). One end of the string is fixed with a hard knot to one of the bow ends fig. 93 a). This end of the bow is pressed on the ground, and then the stave is given a slight bend — with the help of the knee — and the string is wound on to the upper bow end, in the way seen in figs. 92 and 93 b. The spare end of the string is then tied along the outer side of the bow, as seen in fig. 90. This figure shows a comparatively well-made Choroti bow, without pared-down string-holds, or windings for holding the string in position, and with the string put on in the proper way. On the other hand, fig. 91 shows a bow with string-hold windings and a string badly put on. In shooting, the Choroti generally hold the bow so that the end wound with the loose end of the string points downwards (figs. 90, 91 and 96).

411 Even when the bow is »at rest» (that is to say, when the string is not much tightened), the middle part of the string, owing to the said curving of the stave ends, will be at a certain distance from the stave, which makes it possible to use the bow without first tightening the string. But if there is time for shortening the string, this is almost always done. The Choroti shorten and lengthen the bow string, in the same way as is done by the Chiriguano on their bows (see p. 208).

For the protection of the wrist from the blow of the string, the Choroti sometimes use broad wrist guards of leather.[2]

The arrows used by the Choroti are, as a rule, tipped with some hard,
[177] heavy wood (figs. 97—103), but iron arrow-heads (figs. 104—106) are more and more coming into use. Occasionally, the fore end of a wooden arrow-head may be fixed into the marrow cavity of a sharpened piece of bone. Such bone-tipped arrows are, however, very rarely met with among the Choroti; for my own part, I failed to acquire more than a single.

[1] The Choroti also use bow strings made of caraguatá fibre; Nordenskiöld (11), p. 36. I never myself, however, saw any bow strings of that kind.

[2] Nordenskiöld (11), p. 43.

[text continues on p. 94]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

is applied about the socket, there is sometimes, covering it wholly or in part, a casing of snake or lizard skin (fig. 106). In order that the heavy arrow-head (together with its socket) may not happen to slip out of the shaft when the arrow is being carried in the belt, the foremost end of the string used in winding on the socket is often passed back along the socket (in the way shown in fig. 105)) and tied on to the winding on the fore end of the shaft.

Poison is never put on the arrow-heads, but these are often provided with barbs (figs. 99—102). For bird shooting the Choroti use arrows with a club-shaped head (fig. 103), in appearance similar to those I have described from the Chiriguano. Among the Choroti, however, there are seldom seen club-like arrow-heads that have, in the centre of their striking face, a projection such as the Chiriguano arrows have (see fig. 212 and p. 209). As regards the Choroti arrows I have here reproduced, their lengths, and other particulars about them, will be seen from the appended table.

Fig. 107. Feathering of the arrow, fig. 99. 1/1.

I think I ought to mention that in ancient Indian graves in the mountain region there have been found arrows of exactly the same types as those nowadays used by the Choroti and other peoples of the Chaco.[1] These types are, however, not those that are characteristic of the mountain region, the arrows of the mountain tribes now inhabiting the area of the ancient Peruvian realm having quite a different appearance.[2]

As regards arrow heads, I wish to point out that even the most singular forms may be common to peoples that are each others' antipodes. In cases where human beings have reached much the same stage of cultural development, when they have similar needs, and access to the same sort of materials for weapons and other implements, then similar forms of implements are apt to be produced, independent of time and locality. As an example of this I may adduce that among the Esquimaux of western Greenland are to be found arrows with bone heads of exactly the same

[1] See for example Boman (4), pp. 729—730; Joyce (1), plate XXVI, fig. 4; Lehmann-Nitsche (6), p. 37.
[2] See for example von Rosen (10), figs. 140—143.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

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These round beads are cleverly threaded (Fig. 33).

The Ashluslay and the Choroti also wear necklaces of square snail shell beads (Fig. 34) with two holes in each.

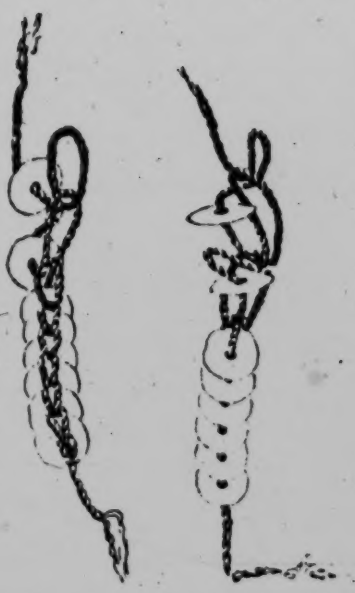

Fig. 33. Part of a necklace of snail shell beads. Choroti G. M. (D. 90) 2/3.

The snail shell bead necklaces are the kind most characteristic of the Indians here dealt with, but the Ashluslay and Choroti have quite a number of other necklaces, of seed grain, teeth, pieces of straw and leaves, glass beads, etc. Most Indians, save the Fuegians, probably also wear perforated teeth as ornaments. I have some in my collections from the Choroti, Ashluslay, Atsahuaca, Chacobo, Cháma. Guarayú (Pauserna), Huanyam, Huari, Mataco, Tambopata-Guarayo, Yamiaca and Yuracáre. Perforated teeth are here included among the cultural elements about whose origin I know nothing certain. The same is true of trinkets of seeds, pieces of straw, etc. At present the geographical distribution of these objects cannot be determined in a satisfactory manner. This is the more impossible without going through the unpublished collections of all the large museums.

Fig. 34. Piece of a necklace of snail shell beads. Choroti G. M. (D. 70) 1/1.

The Choroti and the Ashluslay Indians often wear a broad woven band tied round the head and ornamented, occasionally with fea-

C
[284]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

415 of a river mussel (fig. 133). These mussel shell spoons are seldom as large as the specimen here reproduced, which has a length of 14 cm.

I have seen neither food dishes nor spoons, made of wood, among the Choroti, but nowadays, at least, such are used by them.[1]

285 415 Among the Choroti I saw only one single piece of basket work (fig. 134). It consists of a small basket of the same shape as a kind of pot, which is common in the Chaco (see cooking pot in fig. 192), and it is probably only a direct copy, made in sport, of a clay pot; otherwise, basketry is unknown to the Choroti, and it is therefore probable that the object in question has either found its way to these Indians from the Chiriguano, or that some Choroti, having seen basket-weaving in a Chiriguano village at some passing visit, subsequently has attempted to produce, some similar work himself. It should be noted that the weaving technique in the basket here reproduced is the same as the one used by the Chiriguano.

Fig. 133. Spoon, consisting of a mussel-shell. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 107.

[7]

286 415 The Choroti keep no inconsiderable part of their goods and chattels in large, nearly oval, knitted bags of caraguatá yarn (figs. 135 and 136). These bags are especially useful when the tribe is journeying or migrating. They are carried by the women in such a way that the tape or string within the ends of the bag is placed across the forehead, whilst the bag rests against the carrier's back. The carrying cord over the forehead keeps the bag from slipping down the back. For carrying water pitchers and other vessels of earthenware or calabash, the Choroti use carrying nets. On page 118 I have described the way in which these are used.

[285]

[482]

Fig. 134. Basket, Choroti(?). Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 144.

For everyday use the men have a kind of

[1] Nordenskiöld (11), pp. 86 ff.

G 285 353 /462 cont /

serve as amulets, and in any case, as ornaments. (Roth, pp. 497-499. Figs. 241-244 and p. 270; Koch-Grünberg, 2, Vol. II, p. 244.) In the same way the Chiriguano Indians decorate their huts with these figures, which they take care to have blessed. Exactly as in Europe they keep palm branches as lucky charms. Rosen (1, p. 61, Fig. 51) publishes a similar straw amusement which he found among the Choroti and which was pointed out to him as an ornament worn on the forehead. This explorer suspects the exactitude of this information and supposes that a ritual object is concerned. In reality, it is only a "flower," which the Choroti described by Rosen probably received or bought in some Chiriguano mission. It is enough to compare the figure of it that he gives us and ours in order to be convinced of this.

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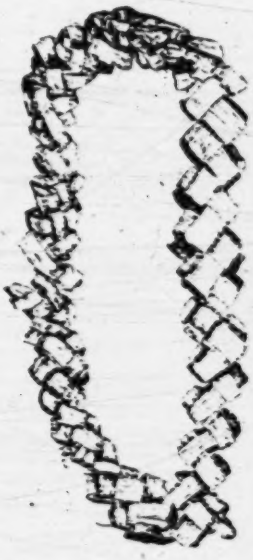

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Fig 119. Wreath of plaited palm leaves (amusement or ornament?). Ashluslay. Prov.: Estero Patiño. (1/4 nat. size.)

A C Ci 285 171

Figures made of palm leaves are not, however, unknown to the other Indians of the Chaco. The Ashluslay sold me a diadem braided according to this principle (Fig. 119) and Rosen (1 Fig. 44, p. 48) reproduces an identical head-ornament which he bought from a Choroti tribe.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

291 occurrence. I was, however, told that, in olden days they were in general use among the men. Fringed leather belts of the same kind as the one [171] here shown, are still common among the Lengua in the eastern Chaco.[1] Belts and girdles are fastened round the waist by means of a thin leather strap, passed through, and tied to, two holes at one end of the belt. The two free ends of the strap are threaded through two corresponding holes in the other end of the belt (see fig. 31); are tightened up as required, and tied. In the same way the Choroti fasten their fringe-less leather belts (fig. 171), which are usually made of white oxhide, and serve to secure mantles and skirts round the waist (see fig. 30: the man farthest to the left). The Choroti also wear broad, fringe-less belts of oxhide as a protection for the stomach from arrow shots.[2]

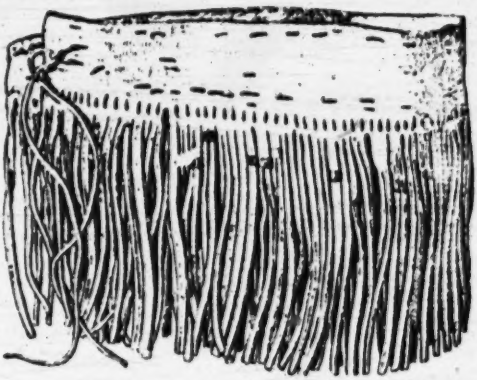

Fig. 31. Fringed leather belt. Mountings of tinplate decorating some of the fringes. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 8.

Very common garments are large woollen mantles, which the men either wrap round the waist (figs. 17, 30, the two men on either flank), or drape over the shoulders (fig. [231] 32). The Choroti women weave these mantles of the wool from the 286 flocks of sheep that the tribe owns in the interior of the Chaco. The 297 mantles are usually in two colours, and woven with groups of stripes. I have reproduced, in fig. 33, a corner of a Choroti man's mantle, the size of the mantle being 204 by 183 cm. The fabric, so-called rep, consists of two-thread, tightly spun yarn of a greyish white (the natural colour of the wool) and reddish brown; the warp is rounded, so that the weaving is selvedged all round. The woof is red. The ground colour of the mantle is brownish red, and there are six groups of greyish white stripes running with the length of the mantle. Each group of stripes consists of one broad, greyish white stripe, with two thinner stripes of

[1] Grubb (1).

[2] Cf. Nordenskiöld (13), plate 13.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

286 291 the same colour on either side. Beside these six groups of stripes, there is a thin, greyish white stripe running along each of the longer edges of the mantle. The garment is woven in one piece. In the centre of the

516 142 301

Fig. 32. Choroti Indians. Gran Chaco. Bolivia. Photo. E. v. R.

mantle there are figures sewn with reddish brown, woollen-yarn (fig. 34), probably property marks.[1]

291 When engaged in work or pastimes, the Choroti men usually take off their mantles. In »our» Choroti village we therefore always saw a large proportion of the men going about practically naked (figs. 16, 18 and 171).

[1] Cf. Nordenskiöld (13), p. 32.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

286 Among the Choroti, I have only seen a very few individuals wearing
291 the poncho, and the only specimen of this garment I succeeded in obtaining belonged to a half-grown youth. This poncho (fig. 35) consists of a woollen fabric, 160 cm long and 61 cm broad, in the middle of which there is a slit, 26.5 cm in length. The weaving consists of two-threaded, tightly spun yarn of greyish white (the natural colour of the wool) and red (now faded). Its ornamental design is formed by three broad, decorated strips, woven on double warp, so that on one side the pattern shows greyish white on red ground, and on the other side red, on greyish white ground. The fabric between these strips is rep, with the woof of greyish white yarn. Whether this poncho is of Choroti weaving, one cannot be certain. Possibly it has been obtained by Choroti from their Ashluslay neighbours, seeing that similar garments are not uncommon among the latter.[1]

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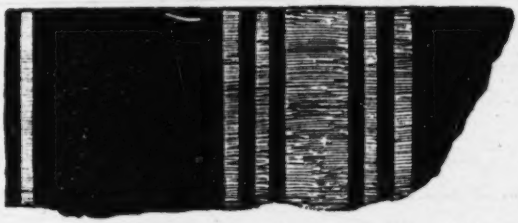

Fig. 33. Corner of man's mantle which is 204 cm long and 185 cm wide, of brownish-red wool, woven with groups of greyish-yellow stripes. Gran Chaco. Bolivia. 1/4. Riksm. 03. 3. 1.

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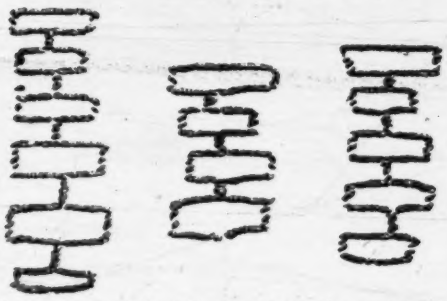

Fig. 34. Ornaments (probably property marks), placed in the middle of the mantle, a detail of which is seen in fig. 33. 1/2.

292 In the huts of the Choroti I frequently came across a kind of thick shirts, knitted from tightly spun
714 caraguatá-fibre threads (fig. 36), but I never saw them in use. In reply to my questions as to the reason for this, I was told that these garments are chiefly worn in fighting, when they are used as a protection against
[171] arrows. Caraguatá shirts are also used by the Ashluslay and the Mataco,[2] but in the literature on those Indians I have found no reference as to their being used as a protection against arrows. The Chiriguano, however,

[1] Nordenskiöld (11), pp. 111 and 112.
[2] Nordenskiöld (11), p. 107.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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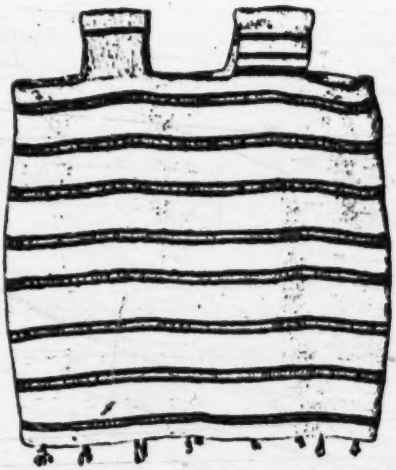

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Fig. 36. Mail shirt, knitted of caraguatá string. Worn principally as a protection against arrows. Choroti. Gran Chaco, Bolivia. 1/4. Riksm. 03. 3. 382.

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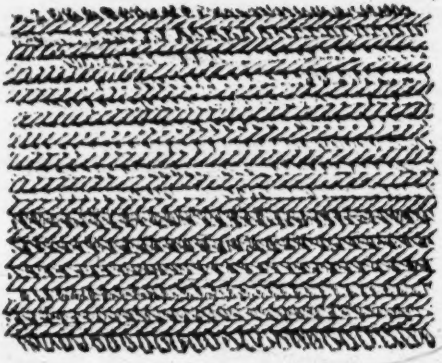

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Fig. 37. Enlarged detail of mail shirt, fig. 36. Natural size.

It is worthy of note that the Choroti also manufacture another protective garment out of caraguatá, namely a sort of stockings. This footgear is put on for wading (in fishing), as a protection against the teeth of the terribly sharp-biting palometa fish.[1]

To protect the legs from spiny plants, I have seen Choroti using a kind of long deerskin leggings, laced on with leather straps. The legging here reproduced in fig. 38, which has a height of 71 cm, reached well above the knee of its wearer. Some of the Choroti make use of sandals,[2] but I have myself never seen them worn by these Indians.

The men generally wear their hair of a medium length i. e., down to the shoulders, or the shoulder blades (figs. 16—18, 39 and 83) — but I have also seen Choroti with hair so long as almost to reach the waist. The hair is usually tied round with a woollen frontlet (fig. 39), or a frontlet of palm leaves (fig. 24), or birdskin (fig. 17), but it may also be worn loosely hanging down (fig. 53). Frequently the hair is tied into a brush-like bunch at the nape of the neck (fig. 39). Woollen frontlets are generally furnished with simple, tasteful, ornamentation (figs. 39

[1] Nordenskiöld (13), p. 110.
[2] Nordenskiöld (11), pp. 113, 114.

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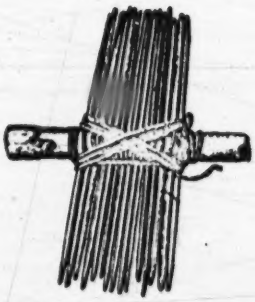

Fig. 85. Split-cane comb. Choroti. Gran Chaco. Bolivia. $^{2}/_{3}$. Riksm. 03. 3. 74.

Fig. 86. Wooden comb, carved in one piece. Choroti. Gran Chaco. Bolivia. $^{2}/_{3}$. Riksm. 03. 3. 70.

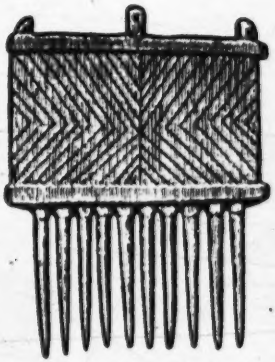

Fig. 87. Wooden comb, carved in one piece; the handle carved on both sides into angular ornament. Choroti. (This comb may possibly have been made among the Chiriguano.) Gran Chaco. Bolivia. $^{2}/_{3}$. Riksm. 10. 3. 38.

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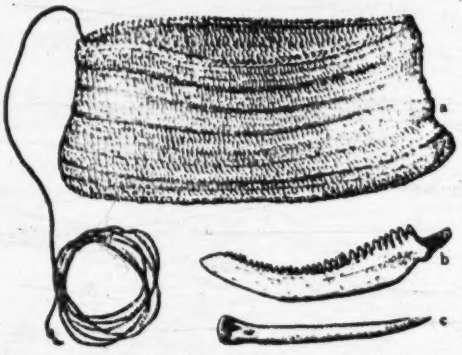

Fig. 88. Miniature bag (a) of undyed (greyish-white), brown, yellow, and black caraguatá fibre. When the author obtained the bag, it contained a stamp for face-painting (b) and a small bone awl for tattooing and blood-letting (c). Choroti. Gran Chaco. Bolivia. $^{2}/_{3}$. Riksm. 03. 3. 101.

older cultural element. The split-cane comb in fig. 85 consists of a piece of cane, about 7.2 cm long, into which a split has been made from one end, so that only 2 cm of the other end of the cane are left intact. The insides of the two legs forming this crotch have been pared down so that the space between the legs of the crotch equals the thickness of the comb teeth at their middle, i. e., in this case about 4 mm. In the fork of this crotch the teeth, 1 to 2 mm thick, have been placed and secured by tying, with their flat sides together. This class of Choroti combs are generally of a construction differing somewhat from the one described, in that the cane has not been split from one of the ends in order to afford room for the teeth, but, instead, there is usually in the middle of it a recess, into which the teeth are fixed in the way I have described.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

thread is wound on and fastened. Probably this thread,[1] was used for securing the bait so that it should not slip off the barbless hook. The line, which consists of three-ply yarn, is 4.4 m. long.

When a fish has been caught, it is killed with small, round-sectioned clubs of some hard and heavy kind of wood (fig. 120), and then strung on a cord, which, by means of a wooden needle (fig. 121), is threaded through the head of the fish, being passed through its eyes. The fish-festooned cord is carried round the fisherman's waist. This is a safe and handy way of carrying the catch whilst continuing fishing operations, swimming or wading. When a collected catch of fish is to be transported

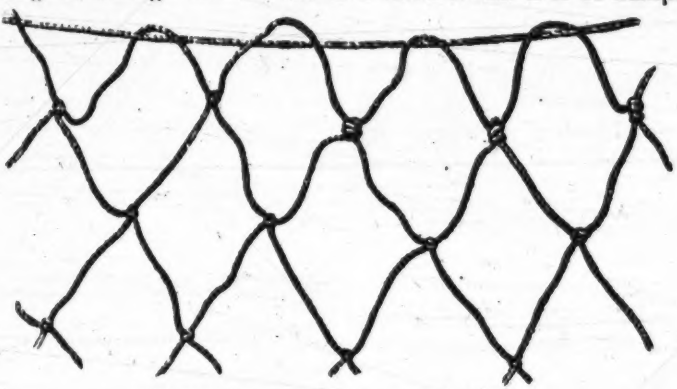

Fig. 117. Enlargement of the net in fig. 116. 2/3.

home to the village, the fish needle and cord also come in very useful. The implement here shown is from the Toba, as the Choroti specimen which I brought home (Riksm. 03. 3. 243) is now lost. The needle in the implement here reproduced probably consists of palo mataco, or quebracho, and has a length of 380 cm and a diameter of 0.5 cm. The cord, however, tapers towards the ends, its extreme points being only a few millimetres in thickness. One end of the cord is bent back so as to form a loop. Through this loop, and through the eye of the needle, a thinner caraguatá string has been passed, several turns, and with this string the loop has been wound, in the way seen in the picture. The specimen here shown is meant for carrying large-sized fish, but these implements are also to be found of much slenderer dimensions.

[1] I have no notes concerning the purpose of this thread.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

136 481 292 I have mentioned that the Choroti do not possess any water-craft, so that when fishing with nets they often have to wade or swim. In doing this, they expose themselves to being attacked by palometa fishes. As a protection for their legs in wading, the Indians occasionally wear a kind of mail stockings of caraguatá (see p. 54), but when they are swimming, they often get badly mauled by these fierce fishes, and I saw several Choroti with enormous scars from the bites of palometas (fig. 53). It also happens, now and again, that Indians, whem swimming, get killed by caymans, which, here and there, are plentiful.

[286 824]

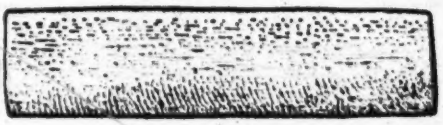

Fig. 118. Mesh-spacer of palo santo (Bulnesia sarmienti). Length 14.0 cm, width 3.0 cm; thickness along longitudinal axis 0.9 cm. The thickness decreases towards the longer edges, which are rounded. Choroti. Gran Chaco. Bolivia. Riksm. 03. 3. 343.

222 In the collection of the fruits, roots and pith of wild plants the Choroti possess an important source of subsistence. The Chaco Indians obtain edible fruits from, inter alia, the algaroba (Prosopis alba), the chañar (Gourliea decortitans), the mistol (Zizyphus mistol) and the tusca (Acacia aroma). The rootstocks of the caraguatá, or chahuar (Bromelia serra), plant are used for food by these Indians, and the same applies to the pith of the fan palm (Copernicia australis). For pulling down within reach the fruit-bearing branches of trees, the Indians make use of wooden hooks with a short arm and a long one, the latter then serving as a handle, whilst the tree branch which is to be bent down, is hooked with the shorter arm of the implement.[1] In digging up the spiny caraguatá plants the Choroti use a forked stick.[2]

[227]

241

Fig. 119. Fishing hook of iron, with line of caraguatá fibre. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 238.

Fig. 120. Fish club of palo santo (Handle upwards). Choroti. Gran Chaco. Bolivia. 1/4. Riksm. 03. 3. 87.

At the time of my stay among the Choroti, the part of the tribe with whom I was in touch carried on no other agriculture than the growing of pumpkins in a primi-

[1] Nordenskiöld (11), fig. 3.
[2] Nordenskiöld (13), fig. 49.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

415 of a river mussel (fig. 133). These mussel shell spoons are seldom as large as the specimen here reproduced, which has a length of 14 cm.

I have seen neither food dishes nor spoons, made of wood, among the Choroti, but nowadays, at least, such are used by them.[1]

285 415 Among the Choroti I saw only one single piece of basket work (fig. 134). It consists of a small basket of the same shape as a kind of pot, which is common in the Chaco (see cooking pot in fig. 192), and it is probably only a direct copy, made in sport, of a clay pot; otherwise, basketry is unknown to the Choroti, and it is therefore probable that the object in question has either found its way to these Indians from the Chiriguano, or that some Choroti, having seen basket-weaving in a Chiriguano village at some passing visit, subsequently has attempted to produce, some similar work himself. It should be noted that the weaving technique in the basket here reproduced is the same as the one used by the Chiriguano.

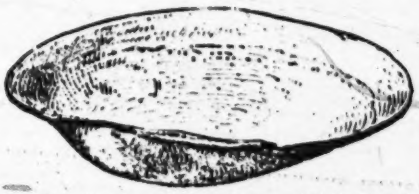

Fig. 133. Spoon, consisting of a mussel-shell. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 167.

[77]

286 415 The Choroti keep no inconsiderable part of their goods and chattels in large, nearly oval, knitted bags of caraguatá yarn (figs. 135 and 136). These bags are especially useful when the tribe is journeying or migrating. They are carried by the women in such a way that the tape or string within the ends of the bag is placed across the forehead, whilst the bag rests against the carrier's back. The carrying cord over the forehead keeps the bag from slipping down the back. For carrying water pitchers and other vessels of earthenware or calabash, the Choroti use carrying nets. On page 118 I have described the way in which these are used.

[285] [482]

Fig. 134. Basket, Choroti(?). Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 144.

For everyday use the men have a kind of

[1] Nordenskiöld (11), pp. 86 ff.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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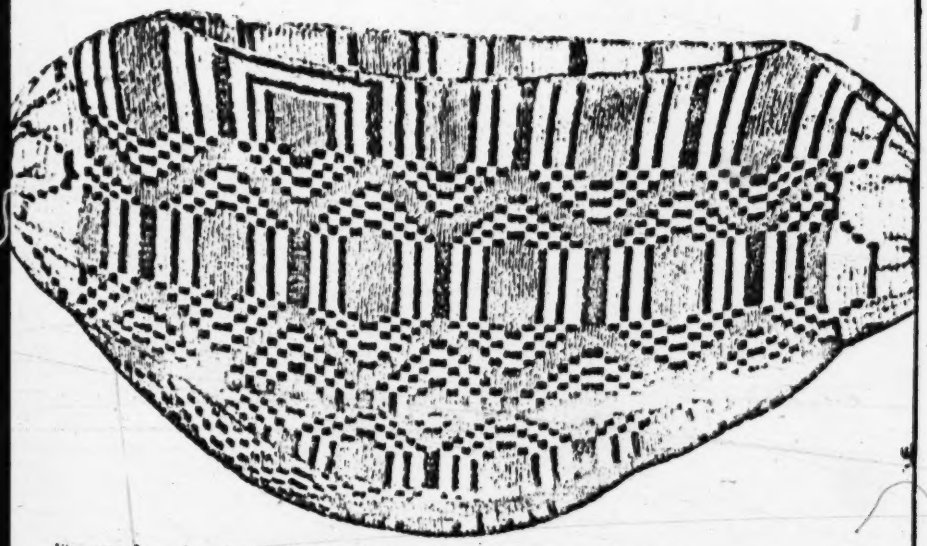

Fig. 135. Large bag, knitted of brown, black and yellowish white (natural colour) caraguatá fibre yarn. Choroti. Gran Chaco, Bolivia. 2/3. Riksm. 03. 3. 134.

smaller caraguatá bags of the shape seen in figs. 137 and 138. These bags are carried by a string or narrow strap laid over the shoulder (see the man with a bow, fig. 96) or tied to the belt, and in them are kept a variety of articles that the Choroti men always like to have about them, such as fire-drilling sticks, tinder boxes, awls for blood-letting, colours for painting of the face, etc.

[482]

The caraguatá yarn is spun, without the aid of a spindle, only by twisting the fibres (of Bromelia serra) against the thigh with the flat of the hand. Some of the yarn is dyed with vegetable dyestuffs in order to produce variegated patterns in the knitting (see figs. 135—139). For the knitting, eyed needles of hard wood (fig. 140) are used. Similar needles of wood or bone are also used for sewing. Among the Choroti I have seen men's bags which had been knitted of woollen-yarn with long cactus spines, used as knitting needles (fig. 141). The woollen-yarn bag here reproduced is ornamented with red, brown and grey

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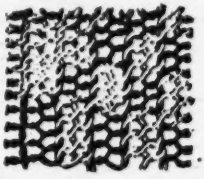

Fig. 136. Enlargement of the knitting of the bag in fig. 135.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

286
415

Fig. 137. Bag, knitted of brown, black and yellowish-white (natural colour) caraguatá fibre yarn. Carrying strap of rawhide, twined together. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 110.

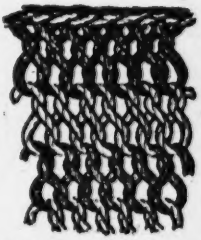

Fig. 139. Enlargement of the knitting of the bag in fig. 138. Twice enlarged.

Fig. 138. Bag, knitted of brown, black and yellowish white (natural colour) caraguatá fibre yarn. Choroti, Gran Chaco, Bolivia. 1/2. Riksm. 03 3. 183.

Fig. 140. Knitting needle, of wood. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 143 b.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

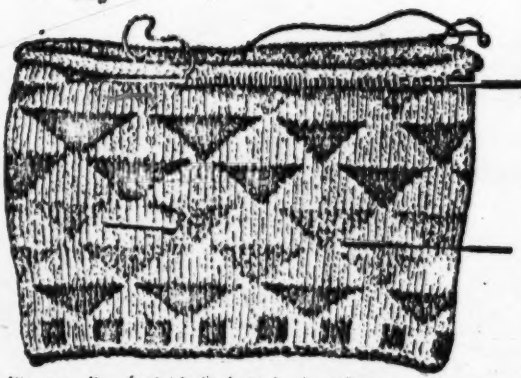

Fig. 141. Bag (unfinished), knitted of woollen-yarn, with two cactus spines used as knitting needles. The pattern consists of red, brown and grey triangles and squares on a greyish-white ground. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 143.

Fig. 142. Distaff, with wooden spindle and a spherical whorl consisting of the hard shell of a fruit. Left-spun cotton yarn is wound on the spindle, near its middle. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 10. 3. 51.

Fig. 143. Distaff, with wooden spindle, and a plano-convex whorl of bone. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 140.

triangles and squares on greyish-white ground. It is probable that the Choroti have learnt the art of knitting through having been in contact with more cultured tribes.

From their herds of sheep the Choroti obtain all the wool they need for manufacturing mantles, loin cloths, ponchos, fillets, bags, etc. Wool, as well as cotton, is spun with distaffs of the Bakairi type[1] (figs. 142 and 143). The spindles of the distaffs are of wood, with a small knob at the top end for fixing the wool. The spindle is always thinnest at the upper end, and increases in thickness downwards, attaining its greatest thickness not far from its bottom end. The spindle whorls consist of various materials, such as fruit rinds, bone, earthenware, etc. I have even obtained a Choroti distaff with a stone whorl (Riksm. 10. 3. 50), although this is a material which is extremely rare on the

[1] For South American spinning implements and their classification see Frödin and Nordenskiöld (1). 10°. — *v. Rosen.* II.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

283 Chaco, a circumstance I have pointed out in the foregoing. At its thickest part, the diameter of the spindle should be somewhat larger than the diameter of the hole through the whorl. The thinner end of the spindle is passed through this hole, and the whorl is then slid downwards until it gets fixed on account of the thickness of the spindle (see fig. 143). If the hole has happened to have been made too large, so that the whorl would slip off, the thickness of the spindle immediately below the whorl is increased by the application of a heavily waxed binding (see fig. 142).

286 Personally I have not seen the Choroti do any weaving, but from this tribe Nordenskiöld has described a very primitive method of fillet weaving: »For a loom, the woman used her own body; the fillet she was weaving was fastened to her big toe, and her hand she used as a batten. In this way she was weaving. the fillet without using any other implement than her extremities.»[1]

For all that, the Chorotis do possess weaving implements, which, among other things, is evident from the weaving batten reproduced in fig. 144. It is carved in one piece out of some hard, heavy wood. The transverse section of the handle is oval, and the blade has two rounded edges.

283 The Choroti make excellent ropes of bast (fig. 145), by twining. One such rope, which I bartered off them, is 11.74 metres in length. At one end of it there is a running noose, and it has probably been used as a lasso.

412 439 At the time when I visited the Chaco, iron was still of such rarity that it was but seldom I saw an iron knife among the Choroti. We had brought with us, as articles for bartering, long, Argentine knives, and with them the Indians were highly delighted. These knives were not used by the Choroti for carving wood with, but principally as carving instruments in cutting up meat.

412 Fig. 144. Knife-like weaving implement (batten) of hard wood Choroti. Gran Chaco. Bolivia. S/o. Riksm. 10. 3. 91.

The Choroti knife, which is reproduced in fig. 146, is a very primitive tool, with a one-edged blade, about 1.5 mm thick, of untempered sheet-iron. The upper part of the blade is wedged into a partly cleft wooden handle, which is covered

[1] Nordenskiöld (13), p. 111.

Q[should be Choroti. -Analyst]

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

The wool of the sheep is turned to account. Sheep and goats are sometimes killed.

Cow horns are used as tinder-boxes, spoons and occasionally trumpets.

Little enclosures are sometimes built for the sheep and goats.

Goat horns are also turned into spoons.

Fig. 11. Wooden Spur.
Ashluslay, G. M. (A. 197) 1/2.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

The Abipone would seem to have no needles[1]). The Tupinambá were unable to sew[2]). Some tribes have probably learnt the use of the eyed needle from the whites.

It seems to me impossible to distinguish from the shape of the needles whether they are imitations of the needles of the whites or not. The needle is an element of culture which the Indians may easily have got to know from the whites. It is also an element of culture which easily disappears under the influence of the whites. Still, I consider it probable that the Chaco Indians had already learnt the use of the needle from the western area of civilization. This holds good not only of the smaller needles (Fig. 57) used for sewing and plaiting, but also of the large needles which the Indians use when fishing.

Needles in the Chaco are used in the first place for making Caraguatá bags of different kinds. Thus the netting represented in Fig 60 (4—6) is done with the needle. One seldom sees the joining of two pieces of cloth among these Indians. Now and then they strengthen the end-band of a rent mantle. Holes are darned with the help of needle and thread (see Fig. 28), but usually in very coarse fashion. Smaller or larger bags of skin are often sewn together. Figs. 58 and 59 show specimens of such work.

Knitting and sewing.

While baskets are altogether wanting[3]) among the Choroti and Ashluslay, they do more string work than most of the other S. American Indians.

These bags, etc., have, in part, to take the place of the basket work of other peoples.

Some of this work is plaiting, other knitting. Most of it is sewing. We see from the illustrations what different spe-

[1]) Dobrizhoffer, Vol. 2. p. 132.

[2]) Soares de Sousa, p. 290.

[3]) The only baskets found here are the fishing-gear mentioned on page 50.

[text continues on p. 198]

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Mataco SI7
Ashluslay SK5

A
C
M
286

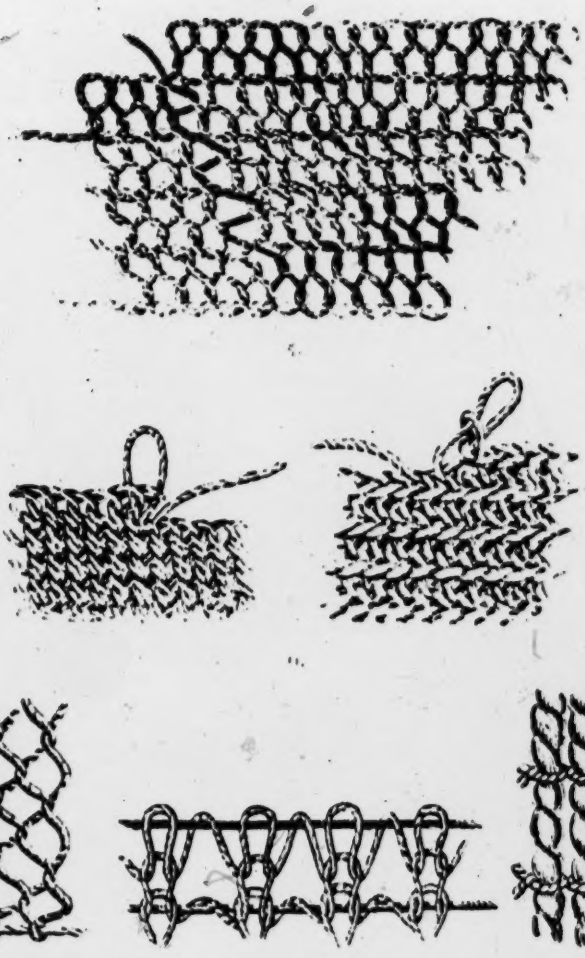

Fig. 60. Specimens of the technique in the bags and netting in El Gran Chaco.

5. R. M. (M. 192) Mataco.
6. G. M. (D. 630). Choroti.
7. R. M. (A. 1494). Ashluslay.
8. G. M. (13.1.09) Mataco.
9. G. M. (A. 1528). Ashluslay.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

A C 286

cimens of technique occur among the tribes dealt with here, and the table on page 200 shows where they occur inside the area investigated by me.

Of these different specimens of technique 1 is used for small bags and 2 chiefly for the large landing-nets; 4 a for small bags and 4 b for hairnets; 5 is above all for the large bags used for carrying; 6 for small bags and for most shirts; 3a and 3b for large bags and for the stockings which serve for protection from the Palometa fish; 8 for small bags; 7 for the sides of a certain form of bag; 9 for small honey-strainers. Specimens 1—7 and 9 I have only seen in work made of Caraguatá, and 8 only in woollen bags.

It would be of very great interest if a study were made of the distribution of the various kinds of knitting and plaiting etc. in S. America. A beginning has been made by RADIN who, however, though the rich material of the Berlin Ethnological Museum was at his disposal when writing his treatise, strangely enough did not examine the specimens of work which that collection contains from the coast lands of Peru, but confined himself to specimens of work carried out by present-day Indians.

Ordinary netting is widely distributed in S. America. It occurs in all the places where the Indians are indicated as using landing-nets and nets. There are two kinds of knots: *reef-knots* (Fig. 60.1) and *sheet-knots* (Fig. 60.2). The Ashluslay and Choroti employ the latter in nets and occasionally for bags, the former in bags only. In addition to the places indicated in this table, reef-knots are found in N. W. Brazil[1]), on the coast of Peru[2]), in Guiana[3]), and among the Lengua[4]). According to KRAUSE[5]) the sheet-knot is in use among the Karajá. It would be extremely interesting if some one

[1]) G. M. (16. 5. 33) Collection of KOCH-GRÜNBERG.
[2]) G. M. (16. 9. 78).
[3]) G. M. (12. 1. 343). Collection of LILJEWALCH-THULIN.
[4]) G. M. (4134). Collection of GREBST.
[5]) Fig. 136 b.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

would make a map, based on the collections of the great museums, showing the distribution of these and possibly other knots in S. America.

The Choroti and Ashluslay knit their nets with mesh-sticks (Fig. 61) like those in use in Sweden. I have, moreover, seen the mesh-stick in use among the Mataco, Toba, Chiriguano, Chané and Tapiete. I have not seen it among other tribes, but I would not venture to assert definitely that it does not exist among them.

Fig 61. Mesh-stick. Ashluslay. R. M. (A. 402). 1/3.

KOCH-GRÜNBERG[1]) mentions it from N. W. Brazil. The Lengua make their nets without a mesh-stick; as also the Karajá[2]) and the Ona[3]). Objects have been found on the Peruvian coast which may be mesh-sticks, as for instance at Pachacamac[4]).

The mesh-stick is one of those elements of culture whose distribution is too little known for us to venture to draw conclusions regarding its source.

[1]) (2) Vol. 2, p. 37.
[2]) Grubb, p. 68.
[3]) KRAUSE, p. 288.
[4]) GALLARDO, p. 203.
[4]) SQUIER, p. 96.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Asklusla y SK5
A C 286

Table showing the distribution of the different kinds of technique in the making of bags and nets.
The numbers refer to figures 60.1 - 60.9.

Technique	No. on map	1.	2.	3.	4.	5.	6.	7.	8.	9.
Ashluslay	2.	R.M. A. 1175.	R.M. A. 1538.	R.M. A. 1538. R.M. A. 1835.	R.M. A. 1463.	R.M. A. 1417.	R.M. A. 1173.	R.M. A. 1494.	—	G.M. A. 1528.
Atsahuaca	12.									+
Aymara	69.	[2]				—	—	—	—	—
Chacobo	62.						—	—	—	+
Chàma	73.						—	—	—	+ ?
Chané	5.	R.M. P. 121.								R.M. P. 126.
Chimane	24.	G.M. 15.1. 911.								—
Chiriguano	4.	R.M. E. 686.	R.M. E. 678.							R.M. E. 614.
Choroti	1.		G.M. D. 631.	G.M. D. 680.	G.M.[1] D. 239.	G.M. D. 252.	G.M. D. 630.	G.M. D. 241.	G.M. D. 239.	—
Guarayù (Mission)	10.	—		—		—	—	—	—	+
Guarayù (Pausetna)	11.	—				—	—	—	—	G.M. 15.1 845.
Huanyami	13.	—					—	—	—	G.M. 15.1 6014
Huarl	64.	—				G.M. 15.1. 435.	—	—	—	G.M. 15.1.416.
Mataco	6.	—	R.M. M. 232.	R.M. M. 1140.	R.M. M. 191.	R.M. M. 1036.	R.M. M. 1136.	—	G.M. M.G. 65.	—
Quichua	18.	—	—	—	—	—	—	—	—	—
Tambopata-Guarayo	6X	—	—	—	—	—	—	—	—	—
Tapiete	3.	R.M. Ll. 203	R.M. Ll. 257.	R.M. Ll. 257.	—	R.M. Ll. 179.	R.M. Ll. 186.	G.M. L. 26.	—	R.M. L. 34
Toba	79.	G.M. 580.	R.M. To. 24.	R.M. To. 24.	—	R.M. To. 17.	—	—	—	—
Tsirakua	93.	—	—	—	—	R.M. Z. 35.	—	—	—	R.M. Z. 32.
Yamiaca	63.	—	—	—	—	—	—	—	—	+
Yuracáre	22.	+	—	—	—	—	—	—	—	—

[1]) The Choroti, when they mend cloth use a variation of this technique. [2]) Orbigny, p. 63.

[p. 220]

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5
Mataco SI7

Weaving.

A C 286 The tribes from whom I have made collections on my journeys all know how to weave, with the probable exception of the Siriono. There are in S. America a number of Indians who do not weave. Among these are the Tierra del Fuego tribes and some Gês-peoples.

Many of the Indian tribes I have visited only weave bands. Such are the Chacobo, Huanyam, Huari and Yuracáre. Weaving with ornamental borders (Fig. 27) is only found in the Chaco, and it is evident that weaving among those tribes is on a much higher plane than among the tribes north of Sta. Cruz de la Sierra. This is plainly due to the influence of the mountain civilization to the west. Specimens of weaving with these borders are in my collections from the Choroti, Ashluslay, Chané, Mataco, Quichua and Aymara. They are widely met with in the old excavations in Peru. Among Indians now living I know of such fabrics among the Mbayá[1]) and the Lengua[2]), besides the tribes mentioned here. This is manifestly an element of civilization received by the Choroti and Ashluslay from the old area of civilization in the west.

It is remakable that we find in the Chaco, too, among the (2) Ashluslay bands woven according to the Kelim technique with open slits (Fig. 64). Otherwise this technique is not known among Indians now living in S. America, but only from the (A) old area of civilization in the west. (Map 38).

I have no loom in my collection from the Choroti or Ashluslay. From the latter tribe I photographed one which I had not the opportunity of acquiring[3]).

M 286 From the Mataco, who are closely connected with these tribes, I have several looms of which two distinct types are here illustrated. As we see, the warp is drawn differently in each of these. In the loom (Fig. 63) the warp-threads run

[1]) Boggiani, fig.
[2]) Grubb, fig.
[3]) See »Indianerleben», fig. 52.

[text continues on p. 208]

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

being thus rare objects, as e. g., on the table-lands of the Andes. One calabash which the Mataco-Vejos[1]) have mended was obtained by them originally from the Chané. It is beautifully ornamented and thus, probably, appeared to them more valuable than their own calabashes. It was therefore considered to be worth the trouble of mending.

Feather-work.

There is one small work[2]) on different kinds of feather-technique in S. America. It is not, however, full enough to give information as to the distribution of different forms of this technique. Nor am I in possession of sufficient data of comparison to be able to draw a map showing the distribution of the different methods of binding feathers.

Fig. 69. Illustration showing how the feathers are bound in a footband.

From fig. 69 we see how feathers are bound by the Ashluslay and Choroti into footbands (ankle-ornaments), girdles and the like. It is usual, also, to bind ostrich feathers quite simply around a string. The footbands are partly made in this wise.

In the Chaco it is not uncommon to sew feathers on to cloth. Among the Indians I have visited elsewhere in S. America, I am not aware of this custom. In ancient Peru feathers were often sewn on to mantles, etc.

A peculiar custom among the Indians of the Chaco — the Choroti and others — is that of cutting notches out of the feathers in their brow-bands exactly like some of the North American Indians. In S. America I only know the custom from

[1]) R. M. (M. 1048).
[2]) Mead (2).

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

other Chaco tribes and from Guiana[1]). As regards the Chaco this custom is mentioned by SÁNCHEZ LABRADOR from the Mbayá[2]).

Leather-making.

The Choroti and Ashluslay do not understand the art of tanning. They show skill, however, in making leather soft by scraping. I did not observe any point of anthropogeographical interest in their method of preparing leather.

[1]) GOEJE (1), Pl. 3, 1, 2. Ojana.
[2]) Vol. 1, p. 214.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

ETHNOGRAPHICAL RESEARCH WORK

DURING THE SWEDISH CHACO-CORDILLERA-EXPEDITION 1901-1902

142
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BY

COUNT ERIC VON ROSEN

STOCKHOLM. SOLD BY C. E. FRITZE LTD
BOOKSELLERS TO THE COURT

[Front cover]

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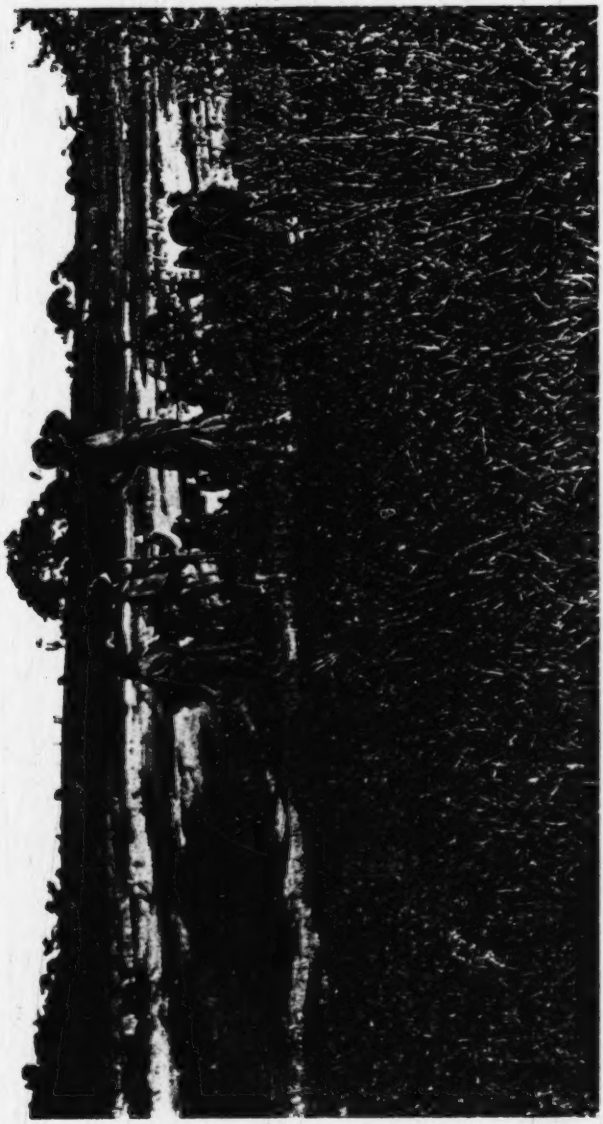

Fig. 8. Steppe with acacias. In foreground, watchful Choroti Indians. Tatarenda, Gran Chaco, Bolivia. Photo, F. V. R.

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Fig. 16. A man, in front of his hut. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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Fig. 17. A man, with frontlet of birdskin. Choroti. Tatarenda camp. Gran Chaco. Bolivia. Photo. E. v. R.

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(material for roofing huts), the Indians are apt to build their villages in the proximity of some grove, or forest, of palms (›palmar‹). As a case in instance, the Choroti village at Tatarenda was situated quite close to a palm grove, and not very far from a largish palm forest. It is of importance that algaroba trees should be growing in the neighbourhood, as the fruit of this tree plays a prominent part in the food arrangements of these Indians.

The huts are of a very primitive character, and are built in the following manner; With a digging-stick (fig. 27) of hard, heavy wood, a succession of holes is dug, or jabbed, in the ground, so as to form a circle with a diameter of 2 metres or upwards. In each of these holes is planted an unlopped, bent-grown branch, thick end downwards, so that the tips of the branch point towards the centre of the circle. By this means a cupola-shaped frame is formed (fig. 26). This frame is covered with a thick layer of palm leaves and grass (figs. 16, 25), unless palm leaves are difficult to obtain, when the hut will be covered with grass only, although huts thatched in this way have less rain resistance. But even the most carefully built Choroti huts are, however, poor enough dwellings which, in any heavy downpour of rain, are unable to keep those inside them from a wetting.

Fig. 18. A man holding a pestle in his hands. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

The huts have one, or even two, entrances, about one metre in height (figs. 16, 25), but huts of the largest size are sometimes provided with several entrances. A sort of porch, constructed of branches and grass, may occasionally be built out from the entrance. When several huts are close together, they may not unfrequently be connected with each other by means of covered passages, or tunnels, built similarly to the huts.

The latter do not contain many utensils. Ranged along the wall, bowls made of gourd shell, a few clay vessels and a wooden mortar, are generally seen. In prettily knitted net bags of spun caraguatá fibre,[1] the Choroti keep all manner of small articles, such as mussel-shell spoons,

[1] Caraguatá, or chahuar (chaguar), Bromelia serra, is, as I have already pointed out, especially common in the Chaco.

wooden sticks for fire-drilling, toilet articles, magic rattles, etc.

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352 [513] wooden sticks for fire-drilling, toilet articles, magic rattles etc. Contrary to the Chiriguano, the Choroti do not use bedsteads or hammocks, but sleep on the ground, with only an animal skin, or a woollen mantle between themselves and the ground.

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Fig. 19. A man, with his daughters. Choroti. From the dry soil forest region between Caiza and Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

343 251 At the cooking-fires in front of the huts, the Choroti now and then erect square sheds, with flat, grass-covered roofs. These sheds are constructed like food-storing racks (fig. 28), and are used both as a protection from the sun and as sleeping places during hot nights According to Nordenskiöld, the Indians on the Pilcomayo use the roofs of these sheds for drying fish on.[1] I am of opinion that these sheds, originally, were only designed for the storing, drying, smoking or roasting of fish, and that, therefore, their use as shade-givers or sleeping-shelters is only

[1] Nordenskiöld (18), p. 36.

[text continues on p. 47]

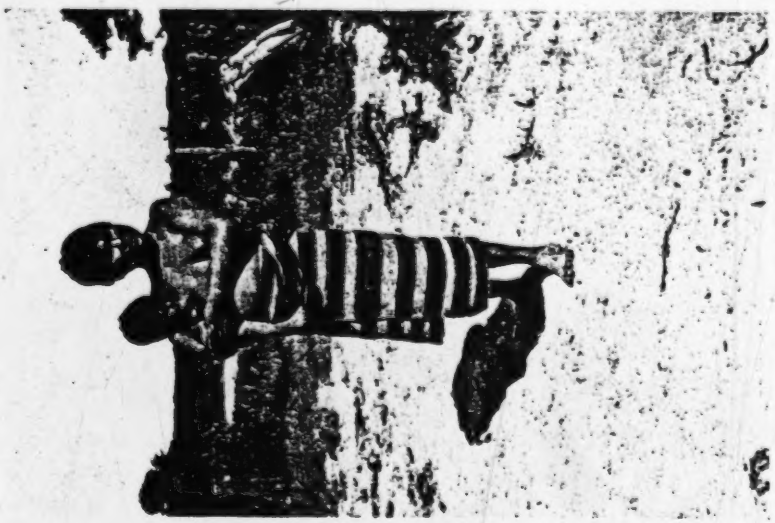

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Fig. 31. A young woman suckling her baby. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

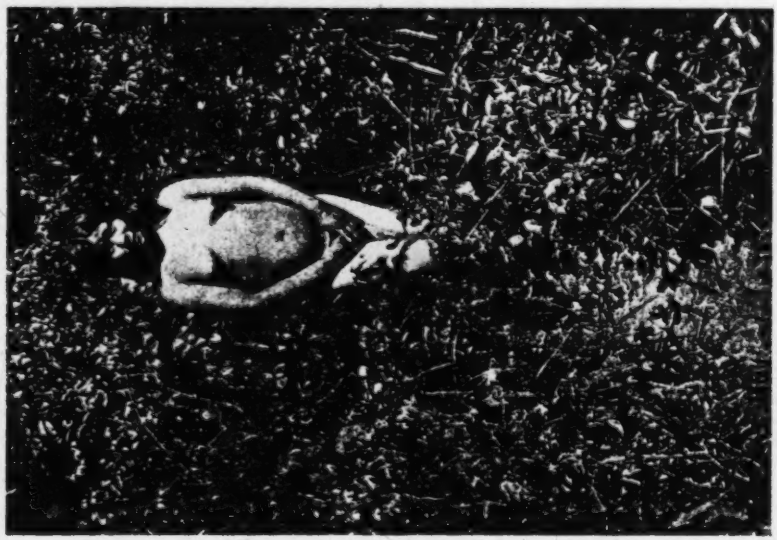

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Fig. 30. A girl. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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Fig. 23. A boy and a girl (probably about 7 and 8 years old). Gran Chaco. Bolivia. Photo. E. v. R.

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Fig. 22. A woman, with infant. Note that the woman's ear-lobes are pierced, but that she is wearing no ear-lobe discs. Chorotí. Gran Chaco. Bolivia. Photo. E. v. R.

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Fig. 24. A boy and a girl (age probably about 10). The boy is wearing a frontlet and armlets, made from palm leaves. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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Fig. 30. Men and women. Back row (8 individuals): men and youths. Front row (4 individuals): women. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

CHAPTER II.

The Choroti (2). Dress and ornaments.

Men's dress. Garments of protection against arrows, fish-bites and thorny plants. Hair-dressing. Frontlets. Hair-nets. Head ornaments of feathers, etc. Ear-lobe discs. The ear-boring custom. Necklaces. Armlets. Anklets. Finger rings. Dress and ornaments of the women. Tattooing. Painting of the face. Cutting the hair short. Pulling out of hairs. Toilet articles and their receptacles. Lack of cleanliness. Phthiriophagy.

291 On account of the warm climate of the Chaco, the Choroti do not require much in the way of dress. The smaller children are always completely naked (fig. 23), and when the men are engaged in any harder kind of work, they then usually only wear a woollen apron, passed between the legs and fastened in front and behind to a string made of caraguatá fibre or wool, tied round the waist (figs. 16, 18 and 30). Occasionally they fasten pieces of cloth, of different sizes, round the waist without tucking them between the legs (fig. 30). I have also seen Choroti men wearing broad, fringed, leather belts (fig. 31), but these skirt-like garments seemed to be of rather rare

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291 occurrence. I was, however, told that, in olden days they were in general use among the men. Fringed leather belts of the same kind as the one
[171] here shown, are still common among the Lengua in the eastern Chaco.[1] Belts and girdles are fastened round the waist by means of a thin leather strap, passed through, and tied to, two holes at one end of the belt. The two free ends of the strap are threaded through two corresponding holes in the other end of the belt (see fig. 31); are tightened up as required, and tied. In the same way the Choroti fasten their fringe-less leather belts (fig. 171), which are usually made of white oxhide, and serve to secure mantles and skirts round the waist (see fig. 30: the man farthest to the left). The Choroti also wear broad, fringe-less belts of oxhide as a protection for the stomach from arrow shots.[2]

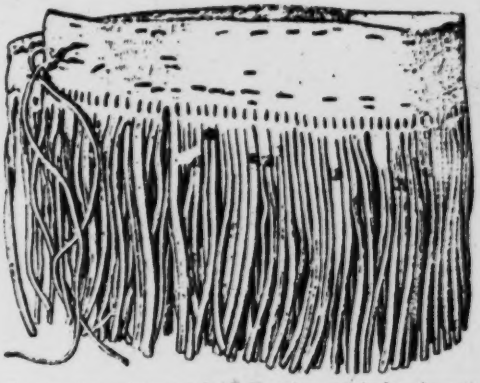

Fig. 31. Fringed leather belt. Mountings of tinplate decorating some of the fringes. Choroti. Gran Chaco. Bolivia. 2/5. Riksm. 03-3. 8.

Very common garments are large woollen mantles, which the men either wrap round the waist (figs. 17, 30, the two men on either flank), or drape over the shoulders (fig.
[231] 32). The Choroti women weave these mantles of the wool from the
286 flocks of sheep that the tribe owns in the interior of the Chaco. The
291 mantles are usually in two colours, and woven with groups of stripes. I have reproduced, in fig. 33, a corner of a Choroti man's mantle, the size of the mantle being 204 by 183 cm. The fabric, so-called rep, consists of two-thread, tightly spun yarn of a greyish white (the natural colour of the wool) and reddish brown; the warp is rounded, so that the weaving is selvedged all round. The woof is red. The ground colour of the mantle is brownish red, and there are six groups of greyish white stripes running with the length of the mantle. Each group of stripes consists of one broad, greyish white stripe, with two thinner stripes of

[1] Grubb (1).

[2] Cf. Nordenskiöld (13), plate 13.

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286 the same colour on either side. Beside these six groups of stripes, there
291 is a thin, greyish white stripe running along each of the longer edges of the mantle. The garment is woven in one piece. In the centre of the

Fig. 32. Choroti Indians. Gran Chaco. Bolivia. Photo. E. v. R.

mantle there are figures sewn with reddish brown, woollen-yarn (fig. 34), probably property marks.[1]

291 When engaged in work or pastimes, the Choroti men usually take off their mantles. In »our» Choroti village we therefore always saw a large proportion of the men going about practically naked (figs. 16, 18 and 171).

[1] Cf. Nordenskiöld (15), p. 32.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

286 Among the Choroti, I have only seen a very few individuals wearing
● 291 the poncho, and the only specimen of this garment I succeeded in obtaining belonged to a half-grown youth. This poncho (fig. 35) consists of a woollen fabric, 160 cm long and 61 cm broad, in the middle of which there is a slit, 26.5 cm in length. The weaving consists of two-threaded, tightly spun yarn of greyish white (the natural colour of the wool) and red (now faded). Its ornamental design is formed by three broad, decorated strips, woven on double warp, so that on one side the pattern shows greyish white on red ground, and on the other side red, on greyish white ground. The fabric between these strips is rep, with the woof of greyish white yarn. Whether this poncho is of Choroti weaving, one cannot be certain. Possibly it has been obtained by Choroti from their Ashluslay neighbours, seeing that similar garments are not uncommon among the latter.[1]

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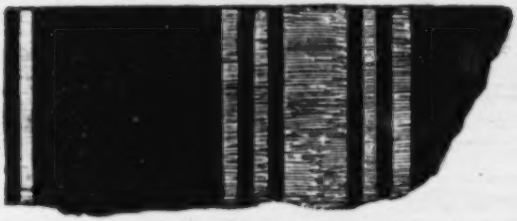

Fig. 33. Corner of man's mantle which is 204 cm long and 185 cm wide, of brownish-red wool, woven with groups of greyish-yellow stripes. Gran Chaco. Bolivia. 1/4. Riksm. 03. 3. 1.

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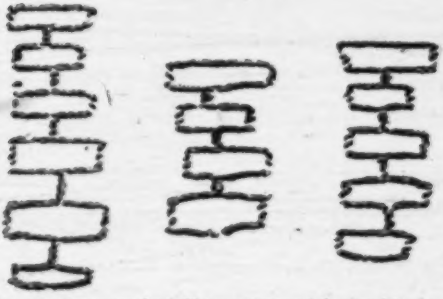

Fig. 34. Ornaments (probably property marks), placed in the middle of the mantle, a detail of which is seen in fig. 33. 1/2.

292 714 In the huts of the Choroti I frequently came across a kind of thick shirts, knitted from tightly spun caraguatá-fibre threads (fig. 36), but I never saw them in use. In reply to my questions as to the reason for this, I was told that these garments are chiefly worn in fighting, when they are used as a protection against [171] arrows. Caraguatá shirts are also used by the Ashluslay and the Mataco,[2] but in the literature on those Indians I have found no reference as to their being used as a protection against arrows. The Chiriguano, however,

[1] Nordenskiöld (11), pp. 111 and 112.
[2] Nordenskiöld (11), p. 107.

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Fig. 36. Mail shirt, knitted of caraguatá string. Worn principally as a protection against arrows. Choroti. Gran Chaco, Bolivia. 1/4 Riksm. 03. 3. 382.

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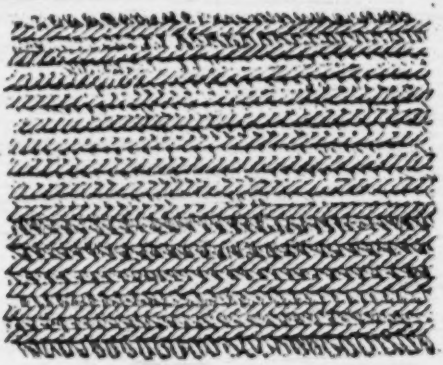

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Fig. 37. Enlarged detail of mail shirt, fig. 36. Natural size.

It is worthy of note that the Choroti also manufacture another protective garment out of caraguatá, namely a sort of stockings. This footgear is put on for wading (in fishing), as a protection against the teeth of the terribly sharp-biting palometa fish.[1]

To protect the legs from spiny plants, I have seen Choroti using a kind of long deerskin leggings, laced on with leather straps. The legging here reproduced in fig. 38, which has a height of 71 cm, reached well above the knee of its wearer. Some of the Choroti make use of sandals,[2] but I have myself never seen them worn by these Indians.

The men generally wear their hair of a medium length i. e., down to the shoulders, or the shoulder blades (figs. 16—18, 39 and 83) — but I have also seen Choroti with hair so long as almost to reach the waist. The hair is usually tied round with a woollen frontlet (fig. 39), or a frontlet of palm leaves (fig. 24), or birdskin (fig. 17), but it may also be worn loosely hanging down (fig. 53). Frequently the hair is tied into a brush-like bunch at the nape of the neck (fig. 39). Woollen frontlets are generally furnished with simple, tasteful, ornamentation (figs. 39

[1] Nordenskiöld (13), p. 110.
[2] Nordenskiöld (11), pp. 113, 114.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

and 40). Miss Agnes Branting, who has kindly examined the textiles here reproduced, found the frontlet in fig. 40 especially interesting, as similar fillets are woven by the peasantry in very many provinces of Sweden, for instance Scania, Halland, Wermland and Helsingland. Miss Branting writes on this matter as follows: »Fillets of this kind are made without any other implement than just any sort of object to which the yarn can be attached, say a weighted pincushion held on the knee. The weaving is begun from the centre of the fillet by crossing one yarn over another; for each turn a yarn is added (from a number fastened with pins) on either side. When the edge yarn has been reached, this is turned inwards, and the plaiting then proceeds from the edges towards the centre. This gives a certain firmness and compactness to the edges, and makes the middle portion slightly thinner, as may be noticed if looked at against the light.»[1]

Fig. 38. Legging, of deer-skin with yellowish-brown hair-covering remaining. Worn for protection against thorny plants. Choroti, Gran Chaco, Bolivia. 1/6. Riksm. 03. 3. 383.

Sometimes the frontlets are decorated with snail-shell spangles, sewn on, although such pieces of magnificence as the frontlet here shown in fig. 41 are very rare. From fig. 42 can be seen the way this frontlet is meant to be worn. These very decorative snail-shell spangles are made from the shells of a large, white land snail (Borus oblongus, fig. 43), common in the Chaco. The Choroti do not themselves make these snail-shell spangles, but obtain them through barter from other tribes.

Narrow frontlets of woollen-yarn (see fig. 30: the 3rd and 4th men from the left) or birdskin (see figs. 17 and 30: the boy who is fifth from the left) are of very common occurrence; less frequently seen are frontlets made from palm leaves, some of which are provided with chin straps, so as not to slip easily off the head (fig. 44).

At dances and other festive occasions, the men are fond of wearing particularly handsome, broad frontlets or head ornaments of stiff or downy

[1] Compare with this a method of hand weaving described from the Choroti by Erland Nordenskiöld. Nordenskiöld (13), p. 111.

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Fig. 53. A man with ear-lobe discs, set with pieces of tin. On his right upper arm is seen the scar from the terrible bite of a palometa fish (Serrosalmo sp.). Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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291 [177] The women of the Choroti, especially the younger ones, have very generally adopted the woman's garment common among the Chiriguano, which is called »tipoy» and consists of a cloak-like covering hanging from the shoulders, where it is secured with cactus spines (fig. 62). The cloth forming the material of these tipoys, is an acquisition by the Choroti from the whites. I saw Choroti girls that had not troubled to sew their tipoys together, but thought it sufficient to pin the edges together with cactus spines down one side. Occasionally the girls wore the tipoy from the hips, as seen in fig. 61. The original garb of the Choroti women consists of a deer skin, or a length of home-woven woollen cloth wrapped round the hips (fig. 21), leaving bare the upper part of the body. Nowadays one only sees elderly women dressed in this way.

301 Contrasted with the men, the women have very few, and very unpretentious, ornaments. The girls wear a necklace or two, made from glass beads or porcelain buttons (fig. 61 and 62), and lizard-skin finger rings. Now and again one may see a woman with armlets, or finger rings, consisting of threaded glass beads, pieces of leather or palm leaf (fig. 62, the girl on the extreme right, and fig. 152).

302 304 The practice of decorating the face by tattooing and painting is common to both sexes. The men, however, are not always tattooed, which, on the other hand, is the case with the women. Painting of the face, which may safely be assumed to possess magic significance,[1] is performed by men as well as women on all important occasions.

304 Whilst it is the prerogative of the men to adorn themselves with the showier ornaments, it is generally the women who display the more abundant tattooing (cf. figs. 63—66 and 71—76). The tattoo marks that a fully grown Choroti woman wears on her face, have not been worked on her all at the same time, but during different phases of her life as she grows up. According to Nordenskiöld, the Choroti begin tattooing their children already when the latter have reached an age of from 5 to 7 years,[2] and thenceforth various designs are added as the years pass. As a rule, the men are not tattooed, or they may have just a few tattoo marks (fig. 63), and it is exceptional to see Choroti men as profusely tattooed as the men in figs. 64—66.[3] As I have already pointed

[1] See Chap. XII.

[2] Nordenskiöld (13), p. 68.

[3] Compare, with this for instance, Lehmann-Nitsche (1), pp. 80 and 81, and Nordenskiöld (13), pp. 69 and 70.

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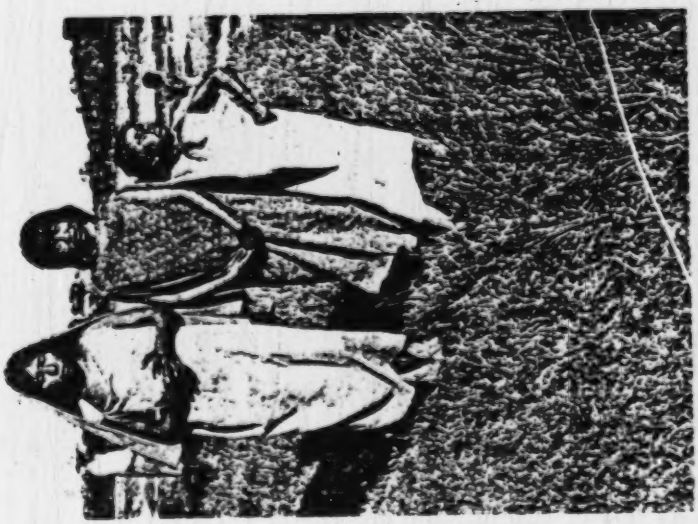

Fig. 60. Choroti girls with »lipoyo» fastened over the shoulders with cactus spines. The necklaces are of glass beads. Gran Chaco. Bolivia. Photo. E. v. K.

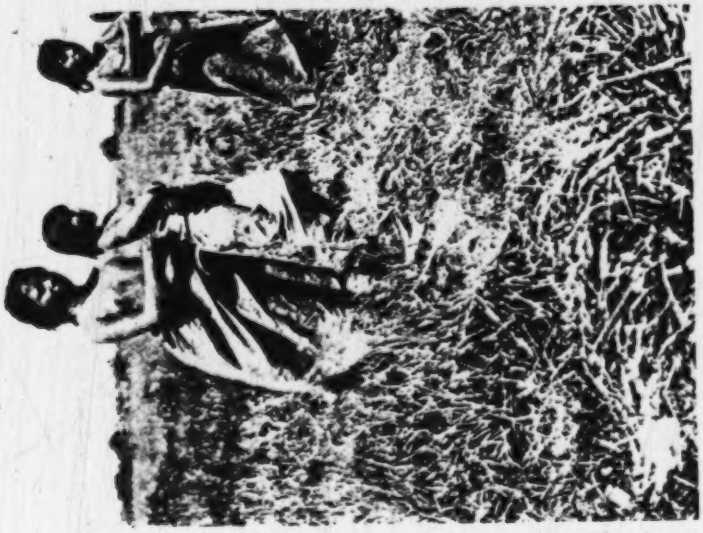

Fig. 61. Choroti girls, wearing »lipoyo» from the hips. The girl farthest on the left is wearing a necklace of porcelain buttons. The other necklaces consist of glass beads. Gran Chaco. Bolivia. Photo. E. v. K.

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302 bamboo holder, 10 to 15 cm long, and 1 to 2 cm in diameter. The bottom of this cylinder consists of a joint in the bamboo, and for its mouth there is a stopper of wool, grass, bast or bees-wax.

[291] In painting the face, the paint is put on with small stamps, which either consist of the jaw-bone of a siluroid (figs. 81, 88 b) or of a piece of carved wood (fig. 82). Flat wooden stamps with diamond pattern are also used.[1] Those interesting stamps that are made from jaw-bones of fishes, are undoubtedly the prototype of the wooden stamps.

[531]

Fig. 81. Jaw-bone of a siluroid. The row of teeth is used as a stamp for putting on the paint in face-painting. The fore-end of the bone is sharpened to a point, so that this object can also be used in tattooing and blood-letting. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 100.

Fig. 82. Paint stamp made of a cane splinter. Is used in the same way as the fish jaw in fig. 81. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 94.

[304] [303] [515]

For cutting off the hair to the desired length (figs. 16—24, 30, 39, 53 and 83), the Choroti use the jaw of the palometa fish, which is set with exceedingly sharp teeth (fig. 84).[2] These are also used as louse-combs, although the Choroti as a rule carry on their louse-hunting only by the means that nature has provided them with. It is possible that once upon a time palometa jaws formed the only combs that the Choroti possessed, but that they afterwards went out of fashion when the more practical wooden or split-cane combs came into use. Of the latter, we may take it that the split-cane combs are the

Fig. 83. A man with hair hanging loose. Choroti. Gran Chaco Bolivia. Photo. E. v. R.

Fig. 84. Jaw of palometa fish (Serrosalmo sp.), used for hair-cutting. Also said to be a louse-comb. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 10. 3. 29.

[1] Nordenskiöld (11), fig. 42.
[2] Nordenskiöld (13), p. 100.

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Fig. 89. Woman taking lice from her husband's head. Choroti on their wandering towards the Pilcomayo. Dry-soil forest region between Caiza and Fort Crevaux. Gran Chaco, Bolivia. Photo. E. v. R.

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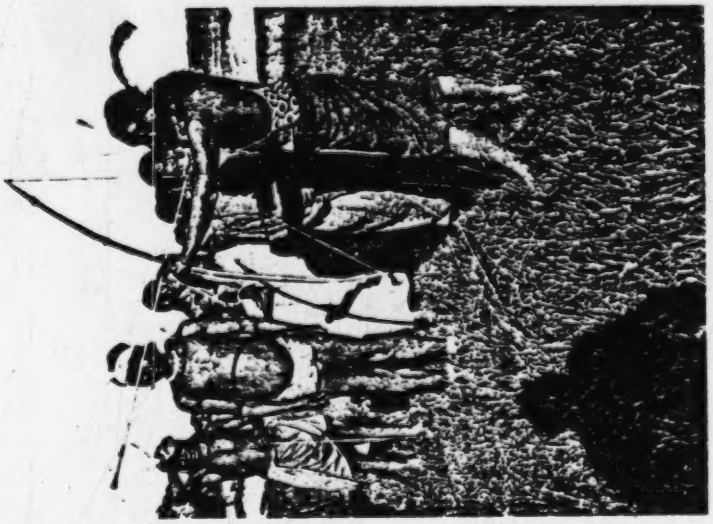

Fig. 96. A man aiming with a bird arrow. Choroti. Gran Chaco. Bolivia.
Photo. E. v. K.

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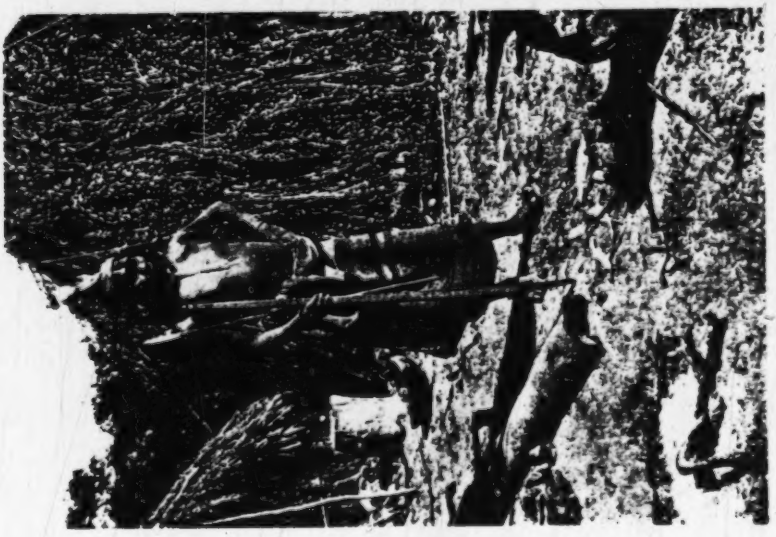

Fig. 95. A man with bow and arrow. Choroti. Gran Chaco. Bolivia.
Photo. E. v. K.

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Fig. 151. A Choroti man producing fire by drilling. Gran Chaco. Bolivia. Photo. E. v. R.

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Fig. 152. A Choroti girl who has put decayed tree stumps on top of the fire in order to preserve it until again needed. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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Fig 171. Men who are engaged in playing a gambling game called »chuke«. The scoring is done by means of arrows stuck into small holes in the ground, usually arranged in the way seen in fig. 173. On account of the shadow thrown by the arrow nearest the foreground, the holes next to this arrow, although strongly sunlit, can be seen. The third arrow from the foreground is planted in the »river« (see page 173). From this picture, as from the diagram, fig. 173, will be seen that the row of holes at times may be laid out so as to form a curve or an obtuse angle.
Choroti. Gran Chaco Boliria. Photo. E. v. R.

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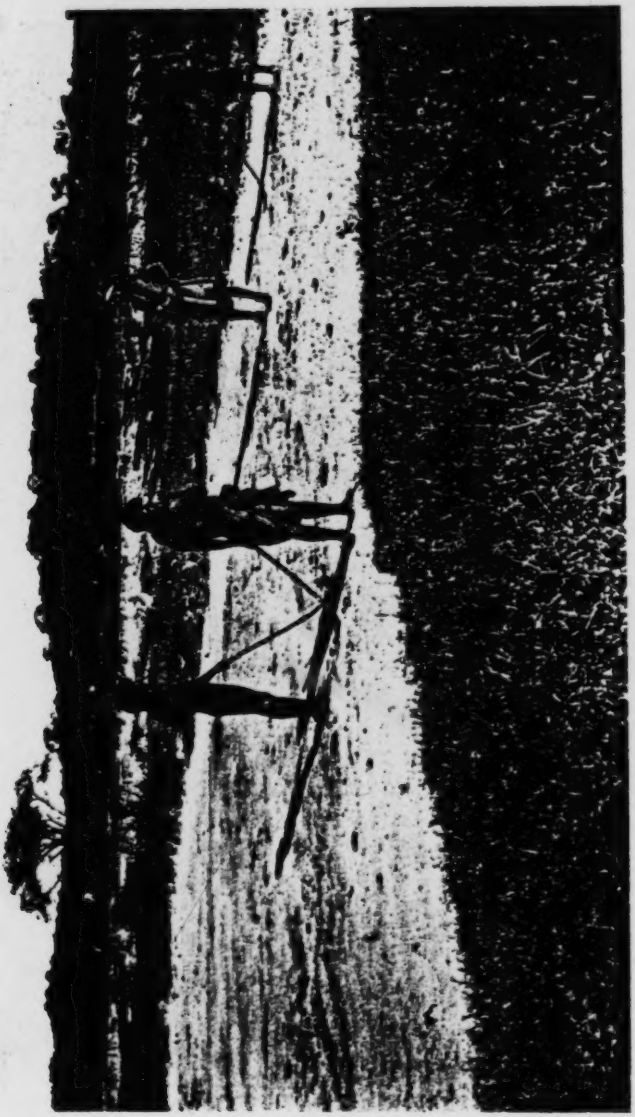

Fig. 177. Boys practising a ball game resembling hockey. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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Fig. 179. A girl, and the lover she has chosen for herself. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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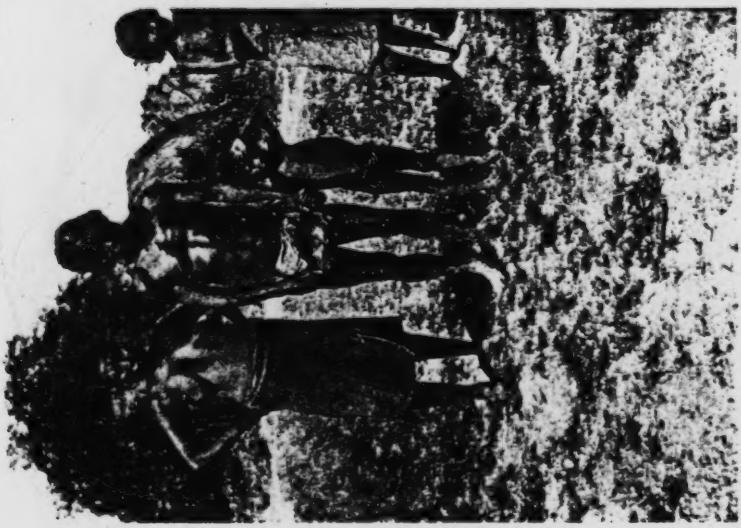

Fig. 178. A chief, with his son and two of his three wives. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XVI.

Dress.

A
C
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The men of the tribes here dealt with, wear, as a rule, big mantles or blankets of home-woven woollen material in which they wrap themselves. They sometimes wear leather sandals. They fasten the blanket with a girdle of leather or woven wool. Occasionally they wear very short shirts, sewn of Caraguata, and now and then woollen shirts. More rarely they wear a poncho. The younger Choroti and Mataco women have a kind of shirt made of textile material, which they get from the whites; the older women have a apron of similar material, or of woven cloth, round their loins. In the same way the Ashluslay women wear an apron of leather or home-woven wool. Occasionally the younger women have a short skirt, called a »tipoy». The women, too, sometimes wear sandals. They do not fasten the apron round the loins by means of a girdle, but by a cord. Now and then the Ashluslay women have large four-cornered cloaks made of a number of coypou or sheep skins sewn together.

Fur cloaks (Map 15) are practical in the cold climate of the most southerly part of S. America and in the mountains. But they are not used in the Andes. In the Chaco, among the tribes I am dealing with, they were formerly in common use, but are now disappearing. This is owing to the fact that the coypou skins from which they are generally made are in great demand among the whites as an article of trade, so

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashlusley SK5

that the Indians prefer to use them for barter rather than as an article of clothing. Woven cloaks have, moreover, displaced fur cloaks. Characteristically it is exclusively the conservative women in the Chaco who wear the fur cloak.

Fur cloaks are worn in the Chaco with the fur inside. The plain side of the skin is generally painted. Each skin is painted separately, and then a number are sewn together.

The Tehuelche also wear their cloaks with the fur inside. The Ona, however, wear them with the fur outside, and this tribe leaves the plain side unpainted.

I have seen these cloaks among the (6) Mataco, (2) Ashluslay and (7) Toba, where they are usually made of coypou skin, rarely of sheep or fox-skin. DOBRIZHOFFER[1]) mention them from the (17) Abipone, DUCEI[2]) from the (9) Toba, SANCHEZ LABRADOR[3]) from the (12) Mbayá, SCHMIDEL[4]) from the (3V) Querandi, HAWTREY[5]) and GRUBB[6]) from the (8) Lengua, STADEN[7]) from the southern (38) Tupinambá, ARAÚJO[8]) following PERNETTY from the (44) Charrúa, SEPP[9]) from the (04) Yaro-Chaná, FALKNER, MUSTERS, PIGAFETTA[10]) and others from the (26) Patagonians, GALLARDO, COIAZZI, OTTO NORDENSKJÖLD and others from the (27) Ona, SKOTTSBERG[11]), MEDINA[12]), HYADES and DENIKER[13]) and other from the (XV) Yahgan, the (2V) Chono and the (1V) West Patagonians.

[531]

1) Vol. 2, p. 132.
2) p. 10.
3) Vol. 4, p. 280.
4) p. 150.
5) p. 282.
6) p. 62.
7) Vol. 2 (p. 3).
8) p. 120.
9) p. 50.
10) p. 12—13.
11) p. 267.
12) pp. 166—167.
13) p. 347.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

MEDINA[1]) from the (10) Araucanians (?). UHLE[2]) found similar cloaks at (B) Arica.

The fur cloak belongs to the southern cultural elements which extend right up into the Chaco, and show that the original culture of the tribes living there is connected with that of the Patagonians and Fuegians.

As an every day garment the fur cloak is unpractical in the Chaco, which has a tropical climate and is infested with insects. But it is good to have when the cold winds sweep over the plains. DOBRIZHOFFER[3]) says that among the Abipone the fur cloak is used by men and women alike when the weather is cold. *Old people of both sexes wore fur cloaks in the warmest weather.* They evidently clung to an old custom.

The commonest male dress among the Choroti and the Ashluslay is a large home-woven *woolen cloak*, in which they drape themselves in the same way as in their fur cloaks.

I found the woven cloak in use among the Chané, Choroti, Mataco, Toba, Ashluslay and Tapiete. HAWTREY[4]) mentions it from the Lengua, FALKNER[5]) from the tribes in Patagonia, except the »Tehuelhets» and »Cheechehets», LUIS DE LA CRUZ[6]) from the Pegueneche, and DOBRIZHOFFER[7]) from the Abipone.

In the mountains home-woven rugs were, and are still, used as beds. When used as a article of dress by the men, they always have a hole in the middle for putting the head through (Poncho).

The Aymara and Quichua women wear a shawl round the shoulders.

[1]) p. 104.
[2]) p. 11.
[3]) Vol. 2, p. 132.
[4]) p. 282.
[5]) p. 112.
[6]) p. 33.
[7]) Vol. 2, p. 129.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

These cloaks are now made in the Chaco out of sheep's wool. We may therefore ask whether the custom of making and using these cloaks dates from post-Columbian times, or whether it is older, i. e. were they made of other material in pre-Columbian times? SCHMIDEL[1]) says that the Indians in the Chaco had llamas, which I consider not at all improbable, as it is known for certain that the Indians in N. Argentina had llamas as far south as Córdova, and, as we shall see from the following, the Chaco Indians had connections with these Indians. It is certain that llama can live in the Chaco, as the guanaco, which is very closely allied to the llama, is found between the R. Parapiti and the R. Grande. It is therefore possible that in pre-Columbian times they had cloaks of llama wool. Still, it is probable that in pre-Columbian times more cotton was used than now for textile fabrics. SCHMIDEL speaks exclusively of cotton clothes. The Indians possibly weave more than they used to since sheep-rearing was taken up. It is certainly not the white men that taught them to weave.

The Tsirakua Indians in the Chaco Boreal have cloaks of Caraguatá.

It is not impossible that these cloaks once had a much wider distribution than now.

The *Poncho* is, as everybody knows, a square piece of cloth with a hole in the middle, through which the head is put. The poncho being sewn together at the sides, with an opening left for the arms, the result is a sleeveless shirt. To this sleeves can then be sewn. The poncho has certainly developed from the cloak, it being nothing but a cloak with a hole in the middle.

Apart from the cloak, the poncho and the shirt, the Indians throughout S. America have no native male garment which protects the body from cold and which covers the greater part of it. This slight variation in the cut of the

[1]) p. 218.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

The Distribution of the Shirt +

in the districts visited by me (See Map 16).

	Reaching to the feet.	Used by the men.	Used by the women.	Material.
Ashluslay.		+		Caraguatá[3]).
Atsahuaca	+	+	—	Bark fabric[1])
Baure.	+	+	+	Cotton.
Chacobo.	+	+	—	Bark fabric
Cháma	+	+	+	» [1])
Chané	+	+	—	Cotton.
Chimane.	+	+	+	» [2])
Chiriguano.	+	+	—	»
Choroti.	—	+	—	Caraguatá
Guarayú (Guarayos)	+	+	+	Cotton[3])
Guarayú (Pauserna)	—	—	—	
Huanyam	+	+	+	Bark fabric
Huari				
Itonama.	+	+	+	Cotton.
Mataco	—	+	—	Caraguatá[3])
Siriono.	—	—	—	
Tambopata-Guarayo.	+	+	—	Bark fabric [1])
Tapiete.	—	—		
Toba.	—	+		Caraguatá.
Tsirakua.	—	—		
Yamiaca.	+	+	—	Bark fabric [1])
Yuracáre.	+	+	+	»

[1]) or cotton.
[2]) or fabric of bark.
[3]) or wool.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

Women.

Mitua[1]), Guahibo[2]), Yururo[3]), Aguaruna[4]).

The poncho is used by the Chiriguano, Chané, Quichua, Aymara, and rarely by the Choroti, Toba, Mataco, Tapiete and Ashluslay. From books I have noted the poncho for the following tribes: Ijca[5]), Inca[6]), Patagonians[7]), Goajiro[8]) Peguenche[9]), Araucanians[10]), Coroado or Caingang[11]), Rio Rio Grande do Sul, Guaná[12]), Gran Chaco and Colorados[13]) Ecuador (very small). UHLE[14]) depicts ponchos of Indians or mestizos at Pasto in Columbia and Quito in Ecuador. DEBENEDETTI[15]) found a poncho in a grave at San Juan. BOMAN[16]) mentions ponchos from graves in Puna de Jujuy and Puna de Atacama.

It plainly follows from the distribution of the shirt and of the poncho that these cultural elements derive from the mountain culture of the Andes. It is remarkable that their distribution has not extended. The long, trying work required for weaving a shirt has, of course, been a hindrance to its spread. That shirt and the poncho have not driven the woollen cloaks from the Chaco is probably due to their serving at the same time as excellent rugs, and that it is espe-

[1]) CHEVAUX, p. 178.
[2]) Ibid. p. 350.
[3]) Ibid. p. 300.
[4]) QUINTANILLA, p. 78.
[5]) BOLINDER (4), p. 61.
[6]) Cosio, Vol. 4, p. 100.
[7]) FALKNER, p. 114.
[8]) PLEVTE, p. 240.
[9]) LUIS DE LA CRUZ, p. 33.
[10]) LATCHAM (1), p. 330.
[11]) TESCHAUER, p. 21.
[12]) COMINGES, p. 305.
[13]) RIVET (3), p. 180.
[14]) (1) Vol. 2, Pl. 13.
[15]) (4) p. 70.
[16]) BOMAN, p. 503 and p. 733.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

cially at night that the Indians there must protect themselves against cold.

The real garb of the Indian woman among the Choroti, Mataco and Ashluslay consists, apart from the fur cloak mentioned above, of a *loin cloth*. It may be, as it often is among the Ashluslay, sewn together of several deer skins stripped of the hair, or it may consist of a piece of woollen cloth, as among the Choroti and Mataco. Occasionally the Ashluslay girls may be seen wearing a short skirt woven in one piece, a short «tipoy» (fig. 27).

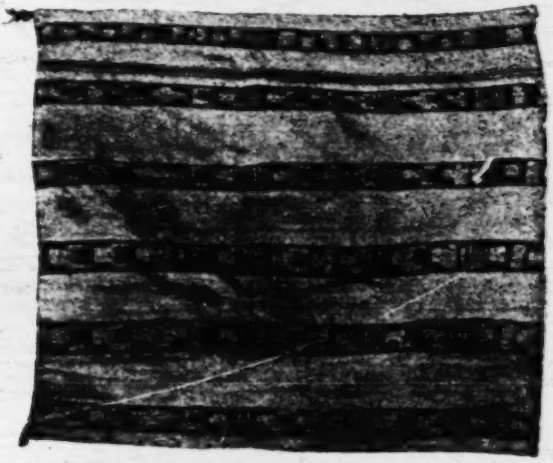

Fig. 27. Woman's garb of wool. «Tipoy». Ashluslay. G. M. (A. 173) 1/8.

The oldest of these is undoubtedly the fur garment. We find it, moreover, among the Lengua[1]. The garment of home woven woollen fabric was probably introduced, like the woven cloak, under the influence of the mountain culture.

We do not find the like among the tribes I visited in N.E. Bolivia and its environs.

[1]) Grubb, p. 69.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

the Indians who have still kept their original culture. The Incas, too, did not patch, but darned their clothes[1])

As foot-gear the (1) Choroti (Fig. 29 a) and the (2) Ashluslay (Fig. 29 b), use, as we have mentioned, *sandals* (Map. 17). These are very practical in the hills, where the soil is stony, and in woods where there are many prickly plants. They are less serviceable in the tropical rainy woods, where they are always getting wet and soon become soft and rot.

In the parts visited by me, the following additional tribes wear sandals: (19) Aymara (5) Chané (4) Chiriguano (6) Mataco (18) Quichua (3) Tapiete (7) Toba and (9,3) Tsirakua.

Fig. 29. Sandal of leather. Choroti. G. M. (D. 4189). 1/3.

Among all these tribes the sandals are of leather, except among the Tsirakua, who occasionally have wooden ones. These Indians also have a curious fastening to the sandal, differing from the usual kind[2]). In the graves on the Peruv-

[1]) »Porque con ella y hilo de lo mismo que son los vestidos, las cosen y remiendan, porque no usan para remendar añadir parte de su paño sobre la rotura, como nosotros, sino que van zurciendo con un hilo de la misma lana lo que de la urdiembre se ha gastado.»

Como, vol. 4, p. 103.

[2]) See »Indianerleben» fig. 138.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5
Mataco SI7

age of Herrera. The Spaniards must have thought them peculiar, since SIMON, who as a rule does not go into the details of ethnographical objects, decribes them minutely. It was on the R. Orinoco that the Indians wore them. They must also have been in use in other parts than Venezuela and the Chaco, though not noticed there, since it is improbable that the Indians in the Chaco and in Venezuela should have indepently hit upon the use of such stockings.

The Ashluslay and the Choroti wear *girdles*, now made of wool, now of leather.

The woven girdles in S. America belong to the westerly cultural elements. We find them in old graves on the Peruvian coast[1]). I have seen them among the Aymara, Quichua, Chiriguano, Chané, Mataco[2]), Choroti, Ashluslay, Toba, and Tapiete. They are known from the

Fig. 30. Girdle coloured by »tying round»-dyeing. Mataco. R. M. (M. 50) 1/10.

cienagas con que se defendian de vnos peces que los Españoles llamaron Caribes por ser tan fieros, y atreuidos q̄ hasen presa en todo lo que topan dentro del agua: y assiendo destos nudos quando entrauan los Indios a pescar, quedaua libre la carne de sus vocas. SIMON, p. 224.

[1]) CHILE (2).

[2]) The Mataco Indians occasionally dye the woven girdle in a way that is of anthropo-geographical interest. They use the »tying round» method of dyeing, which is as follows: Those parts of the material that are to remain undyed, are firmly bound round, whereupon the material is dipped in the dye. The parts »tied round» remain undyed (Fig. 30 a) This method was in use on the Peruvian coast, as well as in the Chaco. A piece of material dyed in this way was brought home by STOLPE (R. M.) It was presumably found at Ancon. The same method is known to the Quichua-Mestizos on Mt. Calilegua in N. Argentina, and has thus, as far as can be judged, reached the Chaco from the mountain culture.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

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Araucanians[1]), Abipone[2]) Ijca[3]), Goajiro[4]), Lengua[5]), Caingná[6]), the Indians in Quito, Riobamba and Angamarca, Ecuador, Popayan in Columbia and Chachapoyas in Peru[7]). They are worn everywhere in conjunction with the dress, and for the most part only by the men.

Fig. 31 a. Leather girdle. Choroti. G. M. (D. 1170). 1/7.

Fig. 31 b. Leather girdle. Ashluslay. G. M. (C. 7). 1/7.

Leather girdles are to be found among the Mataco, Choroti (fig. 31a), Toba, Tapiete, Ashluslay, Chiriguano and Chané.

These girdles are sometimes worn on the body, even when it is otherwise uncovered. Of the Chaco tribes here mentioned, at least the Choroti, Mataco and Ashluslay occasionally have fringed leather girdles covering the privy parts.

The Choroti and the Ashluslay (Fig. 31 b) sometimes wear a leather girdle round the chest.

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[1]) Outes and Bruch (5), fig. 98.
[2]) Dobrizhoffer, Vol. 2, p. 129.
[3]) Bolinder (4) p. 60.
[4]) Pleyte, p. 245.
[5]) Hawtrey, p. 284.
[6]) Outes and Bruch (5) p. 95.
[7]) Uhle (1) Vol. 2, Pl. 11—12.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
Choroti SK 6

In subtropical land like the Chaco, where the weather is often very hot especially during the »summer-time», dress is naturally of the most simple kind. Both among the Mataco, the Choroti, and the Tobas, the most important article of the man's clothing is a small cotton waist-cloth which serves as a covering and protection for the genitals. In addition to this waist-cloth the Mataco and the Choroti formerly wore a kind of broad fringed leather-belt round the loins, whereas the Tobas covered the genitals with a small apron of skin or stuff. The rest of the body is among all the tribes generally kept entirely naked or is only covered by the usual necklaces and other ornaments, or by red *urucú*-painting. When the weather is cold, and on festival occasions, the men also wear big woollen blankets with interwoven linear patterns mostly in red colour. The blankets of the Lenguas and other tribes in eastern Chaco often show designs denoting venomous snakes etc., but such patterns are unknown to the Choroti, and where they are found they have originally been obtained from the interior of the country. Weaving is among all Chaco tribes exclusively a work incumbent on the women.

The Choroti man adjusts his blanket in different ways. In cold or wet weather it is wrapped round the body so as to cover one or both shoulders; when it is hot, he allows it to fall in a double fold from his waist, where it is either fastened by a belt or by tucking the folds of one corner into the other.

The usual clothing of the women is a short cotton petticoat reaching from the waist to a little below the knees, the upper part of the body remaining unclothed. This petticoat formerly consisted of deer or nutria skins sewn together, but since the present-day Choroti are poor hunters such skin loin-clothes are now rarely seen. According to Mr. Hunt, young Choroti girls have nowadays adopted the female dress of the Chiriguano (Avas), a kind of sleeveless, waistless gown caught at the shoulders with a couple of safety pins and known under the name of *tipoy*. At the time when I travelled in the Chaco these *tipoys* were only known to the women among the Bolivian Tobas, but not to the Choroti women, who always kept the upper part of their body uncovered and, in opposition to the Toba women, never showed any shame at displaying their bare breasts. A few necklaces, beads, or twisted feathers replace clothing on these nude parts of the body. Many of the personal ornaments of both men and women have the character of amulets or charms and will therefore be dealt with later on in connection with the religion of the natives.

Much the same may be said of the dress of the Mataco and the Tobas. Both of these tribes, and especially the Mataco, have been influenced

2: Karsten E-5 (1911-1913) 1932 SI7 Mataco SI7
Toba SI 12
Choroti SK 6

by the whites even in their dress, but those sub-tribes who still live in a state of nature keep the body almost wholly uncovered or only wear clothes consisting of animals' skins or cotton or woollen waist-clothes and mantles of their own make, just as is the case with the Choroti. The Catholic missionary Cardús, who visited the Tobas about fifty years ago, relates that the majority of the men used to go entirely naked, only wearing a small apron of skin or stuff. When they went out hunting or to battle they wore a jacket or a breast-plate of tiger's skin. Although nowadays the Tobas commonly use articles of clothing obtained from the whites, they are still frequently seen to go almost naked, only wearing a small waist-cloth, especially when the weather is hot or when they are working. The women, according to the same writer, used to have a small apron of fox deer, or tiger's skin tied at the waist, which reached down to the knees. The hairy side of the skin was turned inwards and the outside was painted in different colours and figures. Nowadays, as I have already mentioned, the dress of the Toba and the Mataco women in Bolivia is the *tipoy*, a sort of long gown or shirt made of red or some other brightly coloured stuff which covers the whole body leaving only the arms bare.

Both the Choroti and the Mataco men on certain occasions wear a kind of coarse shirt made of the fibres of the *caraguatá* plant (*Bromelia serra*). These shirts are mainly worn as a protection for the body against the thorny bushes when wandering in the forests, but also as armour in battle, since the arrows of the enemy are supposed not to penetrate these thick shirts. As a protection for the feet again the men, when hunting in the forest, sometimes wear a sort of sandal or leggings roughly made of deer or tapir hide. The head is always kept uncovered by the Chaco tribes or is only covered by ostrich plumes and the purely ornamental headgear which forms part and parcel of festive attire.

The houses of the Pilcomayo tribes are all of the same exceedingly primitive construction, or at any rate have originally been of the same type. They are round, conical, or beehive-shaped huts, constructed by a number of boughs of trees fixed in the ground in a circle and tied together at the upper ends. This erection is covered with rushes, grass, and palm-leaves down to the ground so as to form a rough thatch. A small opening is left for an entrance or door, which is so narrow that the inhabitants are obliged to enter the hut on all fours. The whole hut, varying from six to ten feet high in the centre, is too low to allow a man to stand erect, and the grass thatch so loose that the abode offers only a poor shelter

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

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Choroti Indians outside their house.

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The open space in the middle of the Choroti village, with a drum placed to the left.

The woman in the middle has a leather strap tied round the chest as a sort of charm against evil spirits.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

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A Choroti settlement in the neighbourhood of Fort Guachalla. Angry dogs are the first to welcome the visitor.

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The old Choroti chief Atamo and his relations.
The scene to the right illustrates the Indian custom of louse-eating.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

The *ear-tubes* which are worn as ornaments for instance by the Choroti, Ashluslay and Toba-Pilagá and which consist of wooden plugs or pieces of cane, sometimes of tremendous size, are likewise nothing but magical charms or amulets. This was clearly indicated by the Choroti, who told me that the ear-discs are worn to prevent the evil spirits, the *möhsek*, from penetrating into the ears. Their hugeness and peculiarity is evidently thought to act as a deterrent upon the spirits, and there seems to be the idea that the larger they are the more efficacious.

The Indians of the Pilcomayo use various kinds of *necklaces*, and it seems to be the rule that among the most primitive tribes, such as the Choroti and Ashluslay, they are more worn by men than by women, among the more civilized Tobas again more by women than by men. Speaking of the dress of the Choroti, I mentioned the large and costly kind of necklace consisting of snail's shells elaborately fashioned into small round buttons with a hole drilled in the centre and closely strung together. The necklace, called *lähslehuésle* in the Choroti language, is not only an ornament but at the same time a magical charm. The Choroti no doubt gave me the true explanation of their original significance when they told me that the necklace is a protection against sickness. The evil spirits, according to the idea of these Indians, preferably attach themselves to the throat or the chest, because catarrhs are very common in the Chaco during the dry season. The spirits are believed to enter into the body through the throat or the breast, but this is prevented by the protecting necklace. Hence, when a Choroti Indian sells his necklace or leaves off wearing it, his comrades say that he will most certainly soon fall ill. The same idea I found prevailing among the Mataco-Nocténes of Bolivia, where such ornaments are worn by both sexes. Thus the son of a chief, who was just at the age of puberty, one day appeared painted red in the face with *urucú*, and with a large necklace which covered the neck and the breast. When I asked the father why his son had put on these things, he answered: »It is in order that he may not fall ill«. Both among the Mataco and the Choroti it is customary that children of both sexes go totally naked up to the age of eight to ten years, but nearly always they wear collars and facial paintings which most certainly are not »ornaments« in the civilized sense of the word.

Among the South American Indians in general it is a common custom to tie round a limb, for instance the wrist or the leg, a leather strap or some other kind of band, professedly with a view to making the arm or the leg strong. The Chaco Indians also commonly wear such ligatures

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

286 Among the Choroti, I have only seen a very few individuals wearing
291 the poncho, and the only specimen of this garment I succeeded in obtaining belonged to a half-grown youth. This poncho (fig. 35) consists of a woollen fabric, 160 cm long and 61 cm broad, in the middle of which there is a slit, 26.5 cm in length. The weaving consists of two-threaded, tightly spun yarn of greyish white (the natural colour of the wool) and red (now faded). Its ornamental design is formed by three broad, decorated strips, woven on double warp, so that on one side the pattern shows greyish white on red ground, and on the other side red, on greyish white ground. The fabric between these strips is rep, with the woof of greyish white yarn. Whether this poncho is of Choroti weaving, one cannot be certain. Possibly it has been obtained by Choroti from their Ashluslay neighbours, seeing that similar garments are not uncommon among the latter.[1]

[531]

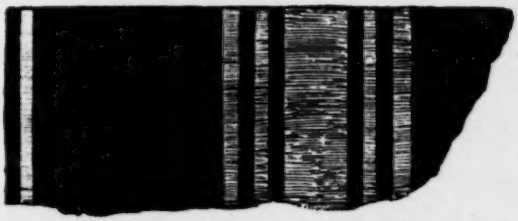

Fig. 33. Corner of man's mantle which is 204 cm long and 185 cm wide, of brownish-red wool, woven with groups of greyish-yellow stripes. Gran Chaco. Bolivia. 1/4. Riksm. 03. 3. 1.

[531 171 422]

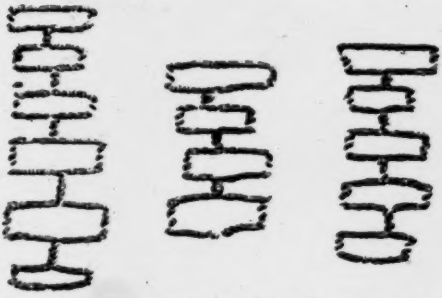

Fig. 34. Ornaments (probably property marks), placed in the middle of the mantle, a detail of which is seen in fig. 33. 1/1.

In the huts of the Choroti
292 I frequently came across a kind of thick shirts, knitted from tightly spun
714 caraguatá-fibre threads (fig. 36), but I never saw them in use. In reply to my questions as to the reason for this, I was told that these garments are chiefly worn in fighting, when they are used as a protection against
[171] arrows. Caraguatá shirts are also used by the Ashluslay and the Mataco,[2] but in the literature on those Indians I have found no reference as to their being used as a protection against arrows. The Chiriguano, however,

[1] Nordenskiöld (11), pp. 111 and 112.
[2] Nordenskiöld (11), p. 107.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

as well as the Chaco tribes of the Guaikurú group, like the Choroti, wear these garments as war shirts.[1] In all the tribes just referred to (and the Ashluslay and Mataco as well), such shirts are worn exclusively by the men. The Caraguatá shirt here reproduced is knitted very tightly and closely (fig. 37), and, although its length is only 56 cm, exclusive of the shoulder straps, it weighs as much as 1.4 kg. The stripes that are worked in by way of ornamentation, have been formed by using string dyed black, and string dyed brown, alternately, in knitting. The parts that are between the stripes consist of undyed fibre. At the bottom edge of the shirt, small pieces of red and yellowish brown cloth have been tacked on; these originate from the whites.

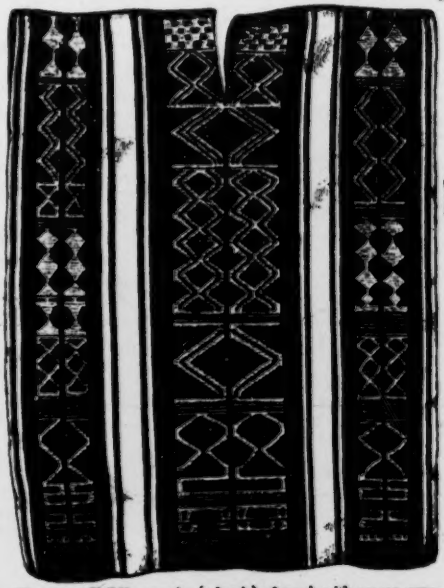

Fig. 35. Child's poncho (a boy's) of wool, with woven ornaments. Ground colour brownish-red; ornament yellowish-grey. Choroti (probably manufactured among some other tribe). Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 4.

These mail shirts of caraguatá-fibre string are exceedingly well manufactured, and undoubtedly form a good protection against the Chaco Indians' arrows, which are usually wooden-pointed. Arrows with rod-shaped, iron wire points, or with leaf-like, edged, iron heads, on the other hand, would probably pierce even the thickest and most closely knitted caraguatá shirt. The shoulder straps in these mail shirts are knitted considerably thinner and less closely than the rest of the shirt, and this is only natural, as the function of the straps is to suspend the shirt, and not to give protection against arrows. Besides, they could only be hit by arrows dipping at an angle from above.

[1] Krickeberg (1), p. 131.

[C should be lower case. —Analyst]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

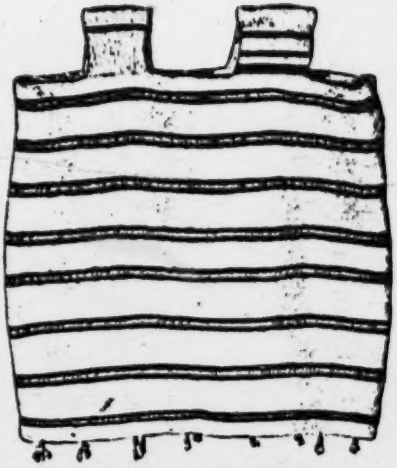

Fig. 36. Mail shirt, knitted of caraguatá string. Worn principally as a protection against arrows. Choroti, Gran Chaco, Bolivia. 1/3. Riksm. 03. 3. 382.

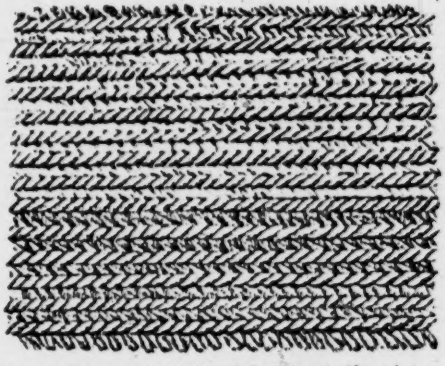

Fig. 37. Enlarged detail of mail shirt, fig. 36. Natural size.

It is worthy of note that the Choroti also manufacture another protective garment out of caraguatá, namely a sort of stockings. This footgear is put on for wading (in fishing), as a protection against the teeth of the terribly sharp-biting palometa fish.[1]

To protect the legs from spiny plants, I have seen Choroti using a kind of long deerskin leggings, laced on with leather straps. The legging here reproduced in fig. 38, which has a height of 71 cm, reached well above the knee of its wearer. Some of the Choroti make use of sandals,[2] but I have myself never seen them worn by these Indians.

The men generally wear their hair of a medium length i. e., down to the shoulders, or the shoulder blades (figs. 16—18, 39 and 83) — but I have also seen Choroti with hair so long as almost to reach the waist. The hair is usually tied round with a woollen frontlet (fig. 39), or a frontlet of palm leaves (fig. 24), or birdskin (fig. 17), but it may also be worn loosely hanging down (fig. 53). Frequently the hair is tied into a brush-like bunch at the nape of the neck (fig. 39). Woollen frontlets are generally furnished with simple, tasteful, ornamentation (figs. 39

[1] Nordenskiöld (13), p. 110.
[2] Nordenskiöld (11), pp. 113, 114.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

and 40). Miss Agnes Branting, who has kindly examined the textiles here reproduced, found the frontlet in fig. 40 especially interesting, as similar fillets are woven by the peasantry in very many provinces of Sweden, for instance Scania, Halland, Wermland and Helsingland. Miss Branting writes on this matter as follows: »Fillets of this kind are made without any other implement than just any sort of object to which the yarn can be attached, say a weighted pincushion held on the knee. The weaving is begun from the centre of the fillet by crossing one yarn over another; for each turn a yarn is added (from a number fastened with pins) on either side. When the edge yarn has been reached, this is turned inwards, and the plaiting then proceeds from the edges towards the centre. This gives a certain firmness and compactness to the edges, and makes the middle portion slightly thinner, as may be noticed if looked at against the light.»[1]

291 302

Fig. 38. Legging, of deer-skin with yellowish-brown hair-covering remaining. Worn for protection against thorny plants. Choroti, Gran Chaco, Bolivia. 1/6. Riksm. 03. 3. 383.

Sometimes the frontlets are decorated with snail-shell spangles, sewn on, although such pieces of magnificence as the frontlet here shown in fig. 41 are very rare. From fig. 42 can be seen the way this frontlet is meant to be worn. These very decorative snail shell spangles are made from the shells of a large, white land snail (Borus oblongus, fig. 43), common in the Chaco. The Choroti do not themselves make these snail-shell spangles, but obtain them through barter from other tribes.

Narrow frontlets of woollen-yarn (see fig. 30: the 3rd and 4th men from the left) or birdskin (see figs. 17 and 30: the boy who is fifth from the left) are of very common occurrence; less frequently seen are frontlets made from palm leaves, some of which are provided with chin straps, so as not to slip easily off the head (fig. 41).

At dances and other festive occasions, the men are fond of wearing particularly handsome, broad frontlets or head ornaments of stiff or downy

292 302

[1] Compare with this a method of hand weaving described from the Choroti by Erland Nordenskiöld. Nordenskiöld (13), p. 111.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

292 302 feathers, tied inside a woven or plaited fillet, usually no more than a centimetre wide, of coarse caraguatá, or woollen-yarn (fig. 45).

And it is also principally at dances that the men of the Choroti wear a sort of knitted skullcaps of woollen-yarn, net-like, and with a chin strap.

142 301 304 322

Fig. 39. A man with a woven frontlet of wool (greyish-white and brownish-black), and ear-lobe discs of wood. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

531 These hair-nets are often studded with snail-shell spangles (fig. 46), or the chin straps decorated with down (fig. 47). With the magic character of these and other ornaments from the Chorotis, I shall deal in a later chapter.

[should be Choroti — analyst]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

To the frontlets are affixed one or more feathers (figs. 32, 16—18, 24, 30 and others). These are obtained from many different birds, ranging from ostrich and white heron to domestic fowls. The feathers are often nicked,

Fig. 40. Frontlet, of wool, with angular ornament in brownish-black and greyish-white. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 9.

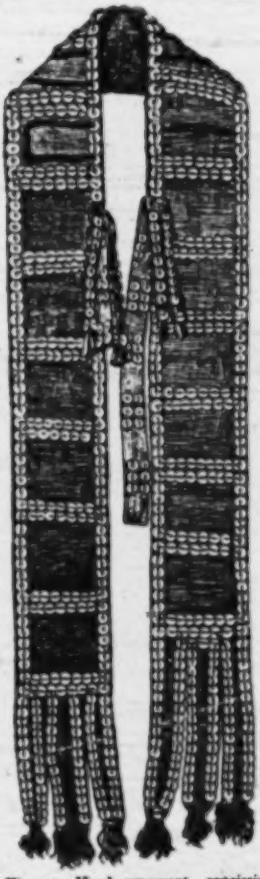

Fig. 41. Head ornament, consisting of a red, woollen, frontlet, 7 cm wide, with snail-shell spangles sewn on, and, in front, beset with turquoise-blue glass beads. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 10. 3. 134.

Fig. 42. A Lengua Indian with head ornament, »scalp lock» and whistle (the latter hanging round the neck on a string). From Hawtrey.[1]

Fig. 43. Borus oblongus, a white land snail, common in the Chaco. From its shell the Indians make small spangles, with which they adorn themselves. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 47.

[1] Hawtrey (1), p. 282, fig. 2.

237 and tied with woollen-yarn on to a small stick or cane splinter (fig. 48),
292 for sticking into the fillet of the frontlet. The Indians take very great
302 care of their feather ornaments, and the easily damaged ostrich plumes
[415] (see front-page plate and fig. 49) are kept encased in bamboo. The plume-case reproduced in fig. 50 consists of a piece of bamboo, 50 cm long and 2.5 cm wide. At the upper joint there is a hole, 3.2 cm long and 1.2 cm wide, through which the partition wall has been removed. The bamboo chip cut out in making the hole near the bottom end, is tied over the hole with a thin strip of bast; whereas the upper hole is without such a lid. The lower hole differs from the upper, in that its edges, as well as the edges of the lid, are painted red. I presume that neither of these holes has been made exclusively for the purpose of facilitating the removal of the wall within the joints, but that they have also served to make easier the taking out of the feathers from the case. The painting red of the holes and lid edges has, as I shall show further on, probably been done with magic intent, for the safeguarding of the plumes.

Fig. 44. Frontlet of palm leaf, with chin strap. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 14.

[789]

292
302

Fig. 45. »State» frontlet, made of white and pink feathers and down from the pink spoonbill. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 15.

The curious object seen in fig. 51 is, it has been stated, meant to be used as an ornament at dances; it is made out of the leaf of a fan palm (Copernicia australis). It seems to me,

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

however, that this object, on account of its weight and shape, would be rather unsuitable for a head ornament. At an attempt at fixing this bunch in a band tied round my forehead, the cluster overbalanced at the very first sharp movement. With some Indians (e. g., the Pueblo Indians of New Mexico) it is the custom at certain dances to hold branches in the hands,[1] and the Mataco, on occasions, dance round two men who are each holding a bunch of sugar cane, resting it on the ground. In this

Fig. 46. Hair-net, with chin strap of red, woollen yarn. The technique in the knitting work resembles what is known as macramé lace. Hair-net as well as chin strap decorated with small shell spangles. Choroti, Gran Chaco. Bolivia. 1/2. Riksm. 10. 3. 15.

Fig. 47. Hair-net of red woollen yarn. Knitting technique resembling that of macramé. In the chin strap, which consists of grey woollen yarn, small downy feathers are worked in. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 5.

latter case the dance in performed in order to hasten the ripening of the sugar cane.[2] The fan palm being of great importance in the food-getting of the Choroti, it is not inconceivable that the palm-leaf bunch here mentioned has been used at some magic dance, held with a view to obtaining an increased supply of palms. That palms are sacred trees, is a universal idea with the Indians,[3] a fact that enhances the possibility of this cluster having had some magical purpose. It may perhaps appear strange that I did not, without further ado, accept the statement of the

[1] Densmore (1), plates facing pp. 117 and 119.
[2] Karsten (1), p. 80.
[3] Karsten (4), p. 126.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

292 302 [24] cluster being merely a head ornament, but the Chaco Indians often give information that is purposely incorrect, and hence one cannot always rely upon their explanations.[1] A quaint head ornament, met with among the Choroti, consists of a cross, about 1 dm high, constructed of feathers, thread, and a wooden stick. These crosses, worn stuck into the frontlet, are very similar to a kind of ornaments, probably symbolic or magic, that are occasionally found together with ancient Peruvian mummies.[2]

[237]

Fig. 48. Ornament of white feathers, meant for fixing in a frontlet. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 26.

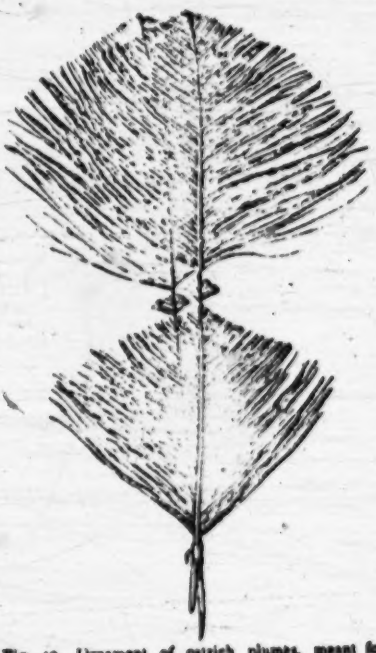

Fig. 49. Ornament of ostrich plumes, meant for fixing in a frontlet. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 30.

302 727 Occasionally the Choroti, and also other Chaco Indians, gather a lock of their front hair into a tuft, tying it round with yarn or narrow woollen tape, so as to make it look like a brush, or broom. Sometimes they make a similar little brush from false hair, and wear it pushed in under the frontlet, over the forehead, so that it points downwards. The false-hair brush here depicted (fig. 52) possessed special value to the Choroti

[1] As to the lying disposition of the Indians of the Chaco, see for example Nordenskiöld (18), p. 34.
[2] Nordenskiöld (11), pp. 138—140.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

136 I have mentioned that the Choroti do not possess any water-craft, so
481 that when fishing with nets they often have to wade or swim. In doing
292 this, they expose themselves to being attacked by palometa fishes. As a protection for their legs in wading, the Indians occasionally wear a kind of mail stockings of caraguatá (see p. 54), but when they are swimming, they often get badly mauled by these fierce fishes, and I saw several Choroti with enormous scars from the bites of palometas (fig. 53). It also happens, now and again, that Indians, whem swimming, get killed by caymans, which, here and there, are plentiful.

[286 824]

Fig. 118. Mesh-spacer of palo santo (Bulnesia sarmienti). Length 14.0 cm, width 3.0 cm; thickness along longitudinal axis 0.6 cm. The thickness decreases towards the longer edges, which are rounded. Choroti. Gran Chaco. Bolivia. Riksm. 03. 3. 242.

222 In the collection of the fruits, roots and pith of wild plants the Choroti possess an important source of subsistence. The Chaco Indians obtain edible fruits from, inter alia, the algaroba (Prosopis alba), the chañar (Gourlica decortitans), the mistol (Zizyphus mistol) and the tusca (Acacia aroma). The rootstocks of the caraguatá, or chahuar (Bromelia serra), plant are used for food by these Indians, and the same applies to the pith of the fan palm (Copernicia australis). For pulling down within reach the fruit-bearing branches of trees, the Indians make use of wooden hooks with a short arm and a long one, the latter then serving as a handle, whilst the tree branch which is to be bent down, is hooked with the shorter arm of the implement.[1] In digging up the spiny caraguatá plants the Choroti use a forked stick.[2]

[227]

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Fig. 119. Fishing hook of iron, with line of caraguatá fibre. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 238.

Fig. 120. Fish club of palo santo (Handle upwards). Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 87.

At the time of my stay among the Choroti, the part of the tribe with whom I was in touch carried on no other agriculture than the growing of pumpkins in a primi-

[1] Nordenskiöld (11), fig. 3.
[2] Nordenskiöld (13), fig. 49.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

881 535 their rattle gourds, whilst the men provided with drums beat them. The girl in whose honour the dance was held was standing motionless and silent at the entrance of the hut reclining against the wall and had to remain so during the whole ceremony. Sometimes, when towards evening she got tired and was on the point of falling asleep, one of the medicine-men came up to her and shook his rattle close to her face as if to keep her awake. The ceremony began in the afternoon and was continued with short pauses throughout the whole evening until midnight. I was [292] informed that as long as the dance goes on the girl need not be veiled, but as soon as the conjuration is finished for the night she must have her face and her whole body well covered. During the whole period [262] that the dance is performed she is moreover obliged to fast, avoiding fish and meat and living only on some light vegetable food.

881 372 I may add that all the men who took part in the ceremony were painted on the face in one way or another. Some of them simply had the face coated red with roucou or black with charcoal, whereas others had X-shaped or other patterns painted on the cheeks. The men's faces are always painted in this way at the conjurations of the Indians, and these paintings 881 have a purely magical significance.

273 The drinking of algaroba beer also forms part of the magical practices at the feast, but it is strictly limited to the men.

881 784 155 845 The object of all these ceremonies is to protect the girl against the evil spirits, the *möhsek*, by which she is believed to be particularly attacked during her unclean condition. The spirits try to enter into her through the face — especially through those parts where there is a natural opening of the body, such as the eyes, the ears, the nose, and the mouth — and also through the ventral parts, the consequence being, if they succeed in doing so, that she will fall ill and die, or become supernaturally pregnant and give birth to a monster. It is in this way that the Indians account for the birth of those deformed children which they kill directly after birth. To prevent such frightful accidents the girl's head and body are covered after the conjuration is finished for the night. By means of the dancing, chanting, drumming, etc. the evil demons who take an interest in the girl and swarm about her are conjured and rendered harmless. According to the idea of the Indians she is not only protected for the time being against their attacks, but she will also retain a certain power of resistance against them in the future.

881 535 The puberty of a girl is not celebrated in all cases among the Choroti with so many ceremonies as in the case just described, but the

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5
Mataco SI7

A
C
M
293

The leather girdle has, as is natural, a southern distribution. Thus, we find it among the Lengua[1]).

The Choroti, Mataco and Ashluslay men always have a little bag, in which they carry their pipe, tobacco, small tools, trinkets, etc. This custom is to be found among many tribes throughout S. America, though by no means among all.

Other tribes, again, though they have little bags of different kinds, do not always carry them, as the Choroti, Mataco and Ashluslay do, for which reason I assume that this custom, too, reached the Chaco under the cultural influence of the tribes in the Andes.

Of the following tribes whom I visited on my travels, the men always carry a little bag: Ashluslay, Aymara, Chimane, Choroti, Mataco, Quichua, Tapiete and Toba.

The Choroti and the Ashluslay have several forms of bags. As a rule these are made of caraguatá. The bags of the Choroti are occasionally made of wool.

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[1]) Hawthorn, p. 282.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashlusley SK5

Juan in Argentina. Two types of rattle gourd can be distinguished in S. America. In the one the tapering part of the calabash serves as handle, while in the other the handle consists of a peg stuck through the calabash. It is the first, more primitive type which is found in the Chaco. It is not possible, at present, to make a satisfactory map of the distribution of the two types, as most of the authors who mention the rattle-gourd do not describe it in detail.

Evidently the rattle-gourd is an ancient element of civilization in S. America, and at the present time it is impossible to say whence the Choroti and Ashluslay received it.

I have not seen dance-masks among the Choroti or Ashluslay. A large number of the ornaments mentioned here, however, are in the first instance worn when dancing. On these occasions also girdles are worn with pendent claws of the tapir, peccary and other animals, which serve as rattles. Rattles of this kind are also fixed on long sticks and used in a certain dance.

Similar rattles are widely spread in S. America. Their pendents, however, consist almost everywhere of fruit-rinds instead of claws. In the districts where I have travelled they are very rare. I have only seen them among the Churápa in the neighbourhood of Sta Cruz de la Sierra. From literature I know of such rattles of fruit-rinds from the Indian tribes on the Rio Negro[1]), Rio Yapurá and Rio Içá[2]), the Jivaro[3]), Bakaïrí[4]), Karajá[5]), Tupinambá[6]), Patamona and other tribes in the Roraima area[7]) Aekawoi[8]),

1) Koch-Grünberg (2), Vol. 1, Fig. 174.
2) Whiffen, p. 213.
3) Rivet (1), Fig. 7 & 17.
4) K. v. d. Steinen (4), p. 320.
5) Ehrenreich (2), p. 30.
6) Soares de Sousa, p. 268.
7) G. M.
8) Schomburgk, Vol. 1, p. 295.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

A [291]

The *tipoy*, i. e. a sack open at both ends, which is worn as a skirt when short, and from the shoulders to the feet when long, occurs inter alia among the Ashluslay (of wool, short), Guarayú-Pauserna (of cotton, short), Siriono (short, knitted of bark fibre), Guarayú (short, cotton)[1]), Karkhohbries (Gorocotoques, cotton)[2]), Mojo[3]), Carios-Tupinambá[4]), (long), Paressi-Kabiśi[5]) (short, of cotton), Chiriguano and Chané (of cotton or wool, long), Chiquitos[6]) Guarani, Paraguay[7]), Xarayes[8]) (of cotton), Guayaná[9]) and Payaguá[10]).

C [296]

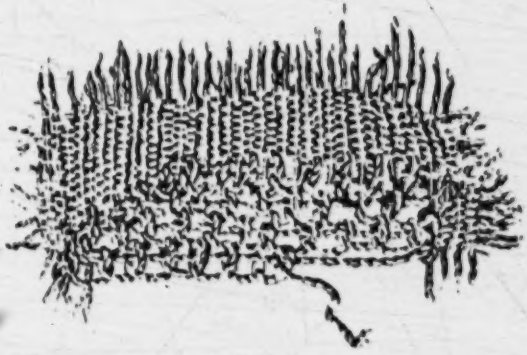

Fig. 28. Piece of a woman's dress, darned. Choroti. G. M. (D. 239) 2/3.

The clothes, especially the women's clothes, are often darned. (Fig. 28). On the other hand, you never see them patched. To mend a hole by putting a patch over it, seems to be unknown to the Indians throughout S. America, i. e.,

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1) D'ORBIGNY, p. 328 (Guarayos).
2) SCHMIDEL, p. 264.
3) CASTILLO, p. 324.
4) STADEN, Vol. 2 (p. 3) PISO et MARCGRAV, p. 270.
5) MAX SCHMIDT (4), p. 186.
6) BURGOS, p. 42.
7) AZARA, (2), p. 416.
8) NUÑEZ CABEZA DE VACA, Vol. 1, p. 300.
9) TESCHAUER, p. 18.
10) AZARA (2), p. 360.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

The Abipone would seem to have no needles[1]). The Tupinambá were unable to sew[2]). Some tribes have probably learnt the use of the eyed needle from the whites.

It seems to me impossible to distinguish from the shape of the needles whether they are imitations of the needles of the whites or not. The needle is an element of culture which the Indians may easily have got to know from the whites. It is also an element of culture which easily disappears under the influence of the whites. Still, I consider it probable that the Chaco Indians had already learnt the use of the needle from the western area of civilization. This holds good not only of the smaller needles (Fig. 57) used for sewing and plaiting, but also of the large needles which the Indians use when fishing.

Needles in the Chaco are used in the first place for making Caraguatá bags of different kinds. Thus the netting represented in Fig 60 (4—6) is done with the needle. One seldom sees the joining of two pieces of cloth among these Indians. Now and then they strengthen the end-band of a rent mantle. Holes are darned with the help of needle and thread (see Fig. 28), but usually in very coarse fashion. Smaller or larger bags of skin are often sewn together. Figs. 58 and 59 show specimens of such work.

Knitting and sewing.

While baskets are altogether wanting[3]) among the Choroti and Ashluslay, they do more string work than most of the other S. American Indians.

These bags, etc., have, in part, to take the place of the basket work of other peoples.

Some of this work is plaiting, other knitting. Most of it is sewing. We see from the illustrations what different spe-

[1]) Dobrizhoffer, Vol. 2. p. 132.

[2]) Soares de Sousa, p. 290.

[3]) The only baskets found here are the fishing-gear mentioned on page 50.

[text continues on p. 198]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

142
291
411
342
301
302

Fig. 16. A man, in front of his hut. Choroti. Gran Chaco, Bolivia. Photo. E. v. R.

[p. 34 is blank]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

301
302
142
291
411

Fig. 17. A man, with frontlet of birdskin. Choroti. Tatarenda camp. Gran Chaco. Bolivia. Photo. E. v. R.

[p. 36 is blank]

361 (material for roofing huts), the Indians are apt to build their villages in
824 the proximity of some grove, or forest, of palms (›palmar‹). As a case in instance, the Choroti village at Tatarenda was situated quite close to a palm grove, and not very far from a largish palm forest. It is of im-
[262] portance that algaroba trees should be growing in the neighbourhood, as the fruit of this tree plays a prominent part in the food arrangements of these Indians.

342 The huts are of a very primitive character, and are built in the following manner; With a digging-stick (fig. 27) of hard, heavy wood, a succession of
142 holes is dug, or jabbed, in the ground, so as to
291 form a circle with a diameter of 2 metres or upwards.
301 In each of these holes is planted an unlopped, bent-
412 grown branch, thick end downwards, so that the tips of the branch point towards the centre of the circle. By this means a cupola-shaped frame is formed (fig. 26). This frame is covered with a thick layer of palm leaves and grass (figs. 16, 25), unless palm leaves are difficult to obtain, when the hut will be covered with grass only, although huts thatched in this way have less rain resistance. But even the most carefully built Choroti huts are, however, poor enough dwellings which, in any heavy downpour of rain, are unable to keep those inside them from a wetting.

Fig. 18. A man holding a pestle in his hands. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

The huts have one, or even two, entrances, about one metre in height (figs. 16, 25), but huts of the largest size are sometimes provided with several entrances. A sort of porch, constructed of branches and grass, may occasionally be built out from the entrance. When several huts are close together, they may not unfrequently be connected with each other by means of covered passages, or tunnels, built similarly to the huts.

352 The latter do not contain many utensils. Ranged along the wall, bowls
415 made of gourd shell, a few clay vessels and a wooden mortar, are gene-
824 rally seen. In prettily knitted net bags of spun caraguatá fibre,[1] the Choroti keep all manner of small articles, such as mussel-shell spoons,

[1] Caraguatá, or chahuar (chaguar), Bromelia serra, is, as I have already pointed out, especially common in the Chaco.

wooden sticks for fire-drilling, toilet articles, magic rattles, etc.

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Fig. 34. A boy and a girl (age probably about 10). The boy is wearing a frontlet and armlets, made from palm leaves. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[p. 44 is blank]

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Fig. 30. Men and women. Back row (8 individuals): men and youths. Front row (4 individuals): women. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

CHAPTER II.

The Choroti (2). Dress and ornaments.

Men's dress. Garments of protection against arrows, fish-bites and thorny plants. Hair-dressing. Frontlets. Hair-nets. Head ornaments of feathers, etc. Ear-lobe discs. The ear-boring custom. Necklaces. Armlets. Anklets. Finger rings. Dress and ornaments of the women. Tattooing. Painting of the face. Cutting the hair short. Pulling out of hairs. Toilet articles and their receptacles. Lack of cleanliness. Phthiriophagy.

291 On account of the warm climate of the Chaco, the Choroti do not require much in the way of dress. The smaller children are always completely naked (fig. 23), and when the men are engaged in any harder kind of work, they then usually only wear a woollen apron, passed between the legs and fastened in front and behind to a string made of caraguatá fibre or wool, tied round the waist (figs. 16, 18 and 30). Occasionally they fasten pieces of cloth, of different sizes, round the waist without tucking them between the legs (fig. 30). I have also seen Choroti men wearing broad, fringed, leather belts (fig. 31), but these skirt-like garments seemed to be of rather rare

[p. 49]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

286 291 the same colour on either side. Beside these six groups of stripes, there is a thin, greyish white stripe running along each of the longer edges of the mantle. The garment is woven in one piece. In the centre of the

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Fig. 32. Choroti Indians. Gran Chaco. Bolivia. Photo. E. v. R.

mantle there are figures sewn with reddish brown, woollen-yarn (fig. 34), probably property marks.[1]

291 When engaged in work or pastimes, the Choroti men usually take off their mantles. In »our» Choroti village we therefore always saw a large proportion of the men going about practically naked (figs. 16, 18 and 171).

[1] Cf. Nordenskiöld (18), p. 32.

292 feathers, tied inside a woven or plaited fillet, usually no more than a
302 centimetre wide, of coarse caraguatá, or woollen-yarn (fig. 45).

And it is also principally at dances that the men of the Choroti wear a sort of knitted skullcaps of woollen-yarn, net-like, and with a chin strap.

[142 301 304 322]

Fig. 39. A man with a woven frontlet of wool (greyish-white and brownish-black), and ear-lobe discs of wood. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[531] These hair-nets are often studded with snail-shell spangles (fig. 46), or the chin straps decorated with down (fig. 47). With the magic character of these and other ornaments from the Chorotis, I shall deal in a later chapter.

[should be Choroti — analyst]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

translated »big ears» — an appellation subsequently transferred to all such tribes within, or in the neighbourhood of, the Inca kingdom, among whom the wearing of ear-lobe discs was customary.

In our days, the practice of wearing ear-lobe discs is met with among a number of tribes distributed over the whole of that part of South America which lies to the north of the tropic of Capricorn.[1] On the Chaco, ear-lobe discs are extensively worn by the Choroti, Lengua[2] and Ashluslay, and are also found among some of the Mataco and Toba Indians.[3] Also in North America the custom of wearing ear-lobe discs, or blocks, appears to be very ancient.[4] The wearing of this kind of ear discs is, however, not limited to America, but is also found, among other places, in Central Africa.[5]

Fig. 52. Brush-like ornament of false hair, for wearing pushed in under the frontlet. Choroti. Gran Chaco, Bolivia.[6] n. Riksm. 03. 3. 65.

Among the Choroti, all the men and youths have their ear-lobes pierced, and in the holes they wear discs (see for instance figs. 17, 30, 39, 53). These discs were almost always used for everyday wear, and invariably on state occasions. It very seldom happened that I saw a Choroti man without his ear-discs. Latterly, the practice of wearing ear-lobe discs has, in the same way as other old customs once prevalent among the Choroti, become less common, and nowadays it seems that the Choroti, for everyday use at least, often appear without their discs. The piercing of the ear-lobes is performed with a bone awl, or cactus spine, already during boyhood, but I did not see any boys under puberty age wearing discs. Neither is there anything in the literature indicating that Choroti boys put on ear discs before that age.[6]

But, on the other hand, immediately on having had their ear-lobes pierced, the Choroti children take to wearing bits of grass, or very slender

[1] Nordenskiöld (11), map 18.
[2] Koch (1), p. 218, and Hawtrey (1), p. 283.
[3] Nordenskiöld (11), p. 122.
[4] See for instance Moore (2), p. 282.
[5] von Rosen (4), plate 7, fig. A, and von Rosen (7), p. 124.
[6] When it has been stated that the wearing of ear-lobe discs has nothing to do with pubescence [Nordenskiöld (12), p. 68], this is correct only in so far as the ear discs of the Choroti, like the tembeta of the Chiriguano, may, perhaps, first and foremost be attributed with a magical significance, and that their character of being symbols of puberty is only a secondary one. Cf. Karsten (4), p. 155.

sticks, in the holes that have been made, in order to keep them from 301
closing up. After the healing of the wound, these plugs are, however 304
taken out, and it is only when the boys have reached the age of puberty,
that the ear-lobe is gradually distended by means of plugging with a 301
succession of ear blocks, or ear-lobe discs, of increasing sizes. Only youths 304
of mature age, and men, are allowed to take part in certain religious 789
dances. At the performance of these, it is of especial importance to be [884]
protected from evil spirits. According to the belief of the Indians, ear discs afford them such protection,[1] and it is therefore possible that this is the reason why the boys begin wearing ear discs only after having attained puberty. For reasons which I shall explain below, I consider that the *piercing of the ear-lobes by no means always implies wearing of ear-lobe discs*. Among the Choroti, the ears of little girls are often pierced in the [562]
same way as in the case of the boys[2] (see the woman with pierced ear-lobes in fig. 22), *but never once did I see a Choroti woman wearing discs in her ears*, nor is there in the literature on these Indians any photographic evidence to be found, as far as I know, of Choroti women wearing ear discs. Further; neither Baron Erland Nordenskiöld,[3] nor Doctor Rafael Karsten, both explorers who have lived for a long time among the Choroti, are now able to recollect with any certainty having seen any Choroti woman wearing ear discs.

To cause bleeding by perforating the skin, has among the Chorotis[a] — as among other tribes in the Chaco — a magic significance, and the 304
possession of many scars is considered a great advantage. Thus, for 755
instance, the Chaco Indians will with ostentation and satisfaction show even scars from bites of the palometa fish. When the Choroti believe themselves possessed by some evil spirit, they prick themselves with sharp-pointed bone awls, and imagine that the spirit leaves the body with the outflowing blood. About this custom, Karsten writes: »If the arm fails or trembles in pulling the bow, its weakness is, according to the belief of the Chorotis, due to the presence of a mohsek in the blood and they think that the evil demon will leave the body with the blood drawn. The [751]
scars left by the cuts are kept up with care and shown with satisfaction,

[1] Karsten (4), p. 124, and Grubb (1), p. 72.

[2] Nordenskiöld observed in a Choroti village that *all* the girls had their ears pierced. According to a letter of his, dated 13 May, 1921. Rockelstad collection of manuscripts, volume 1921, letter N.

[3] According to letter referred to in footnote 2.

[a] [should be Choroti. - Analyst]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

171 Among the Ashluslay, who are neighbours of the Choroti, *only the men wear ear-lobe discs*, which probably is also the case among the Toba.[1]

As I have pointed out in the foregoing, in their culture the Lengua are very closely related to the Choroti, and therefore it would be of especial interest to obtain exact knowledge as to how the practice of wearing ear-lobe discs is applied among the first-mentioned tribe. In the literature on the Lengua we find a definite statement by the distinguished explorer, Koch-Grünberg, to the effect that among the Lengua it is *exclusively* the men who make use of ear discs,[2] whilst the equally prominent Chaco expert, Grubb, says that it is *chiefly* the men who wear these ornaments.[3] Grubb has published the picture of a woman who has distended holes in her ears, but is *without discs*.[4]

From the statements made by Koch-Grünberg and Grubb, I think it probable that among the Lengua, as among the Choroti, it is the rule that ear discs are worn exclusively by the men, but that exceptions may occur. That such exceptions must be of extreme rarity is as obvious as could be desired, from the fact that Koch-Grünberg never saw a single Lengua woman wearing ear discs.

301 322 Among the Choroti, the ear discs are made of wood, cane, gourd shell or palm leaves. In the wooden discs, the front face is flat and often metal-mounted (figs. 53 and 54), or has ornament burned in (fig. 55); the rear face is usually convex and, as a rule, provided with a hole bored or burned into it, sometimes forming a perforation right through the disc. Occasionally the cylindrical surface of the discs is decorated with ornament burned in.

301 The long necklaces of snail-shell spangles, like most other ornaments among the Choroti, are worn exclusively by men. These necklaces usually have a length of several metres, and rank as highly valued possessions; it is exceedingly difficult to obtain such a treasure from a Choroti by barter. The most elegant of the men often wear several necklaces of this

[1] Nordenskiöld (12), p. 68.

[2] »Diese Pflocke sind *ausschliesslich eine Zierde des männlichen Geschlechts; die Frauen tragen sie nie*. Das erste Anlegen des Pflockes ist eine Art religiöser Feier, bei der sie nicht gern einen Fremden dulden.» Koch (1), p. 218. Italics by von Rosen.

[3] »Wooden ear-discs are worn as ornaments, chiefly by the men.» Grubb (1), p. 73. Hawtrey, who has also written about the Lengua, does not say whether only the men wear ear discs, but he has described these objects in connexion with other objects of a more or less magic character, which *as a rule* are worn by men. Hawtrey (1), p. 283.

[4] Grubb (1), the top picture on the plate behind page 73.

[text continues on p. 69]

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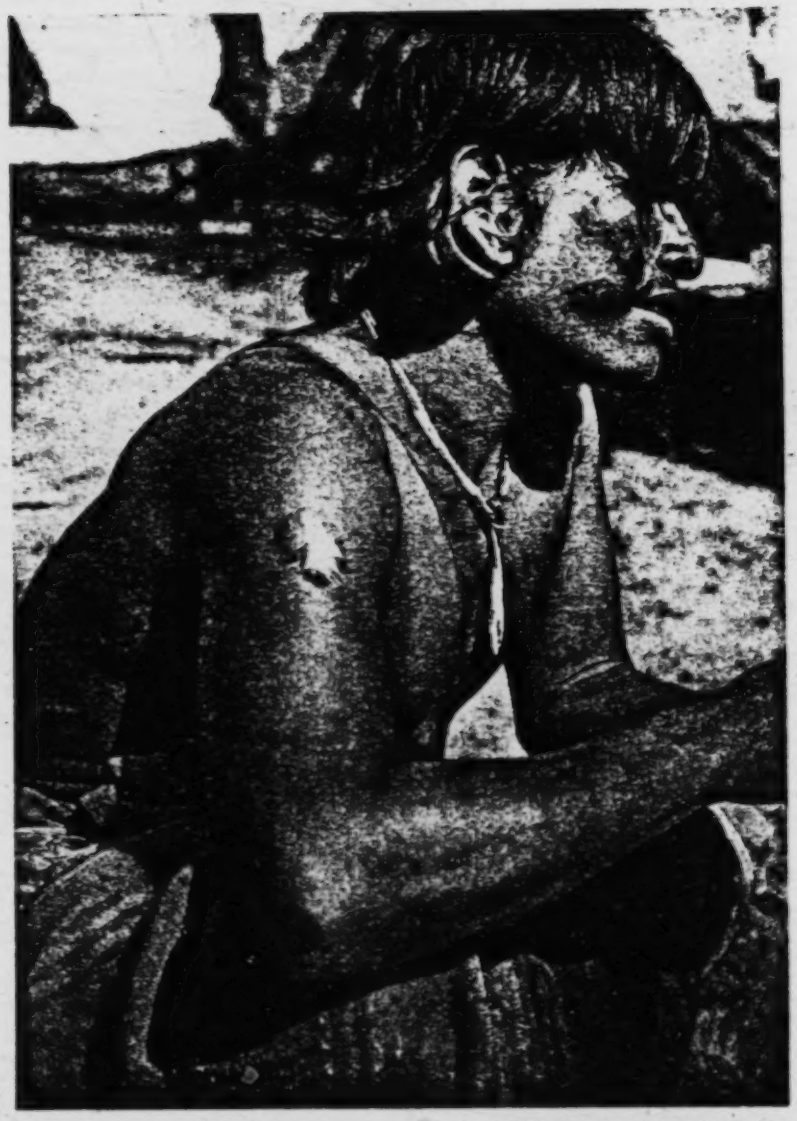

Fig. 53. A man with ear-lobe discs, set with pieces of tin. On his right upper arm is seen the scar from the terrible bite of a palometa fish (Serrosalmo sp.). Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[p. 68 is blank]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

kind, the total length of which may amount to as much as 15 metres. Thus, for instance, the ornamental outfit seen in fig. 56 consists of two necklaces, respectively 4.30 and 4.61 metres long. 301

Necklaces of mussel- or snail-shells of the shape shown in fig. 57 and 58 are also popular. The necklace, fig. 57, consists of 15 spangles made from shells of the common river mussel of the Chaco. The spangles, which are only slightly more than one millimetre thick, are chipped or ground into more or less circular shape, and in, or near, their centre have a perforation right through. Through these holes a string is threaded, so as to keep the spangles fixed in the way shown in the picture. On the reverse sides the spangles retain the rough, greenish brown surface of the mussel-shell; their front sides display the mother of pearl lustre peculiar to the inner side of mussel-shells. In each spangle the front face is pitted with 4 to 5 shallow borings, which either have a magical significance, or may be only designed to enhance the decorativeness of the necklace. 301 321

Fig. 54. Ear-lobe discs, of wood with tin mountings. Choroti. Gran Chaco. Bolivia. 2/3. Rikem. 03. 3. 57.

Fig. 55. Ear-lobe disc of wood, bored right through. On its cylindrical surface ornament has been burned in. Choroti. Gran Chaco. Bolivia. 1/1. Rikem. 03. 3. 56.

[531]

The tags on the necklace shown in fig. 58 consist of rectangular slabs of mussel- or snail-shells. These slabs, which have been very neatly chipped into shape, possess on their front sides a beautiful mother-of-pearl lustre, although they are not of such high opalescence as the spangles in the necklace, fig. 57. The front side of each tag has 3 to 5 shallow borings, the hinder side is bone white. Necklaces of this kind, with quadrilateral tags of mussel- or snail-shell, are specially characteristic of the Chaco.[1]

The Choroti have acquired glass beads from the Europeans, but such beads are far less valued than spangles or the thin plates of snail- or mussel-shells. 301 439

[1] Krickeberg (1), p. 132.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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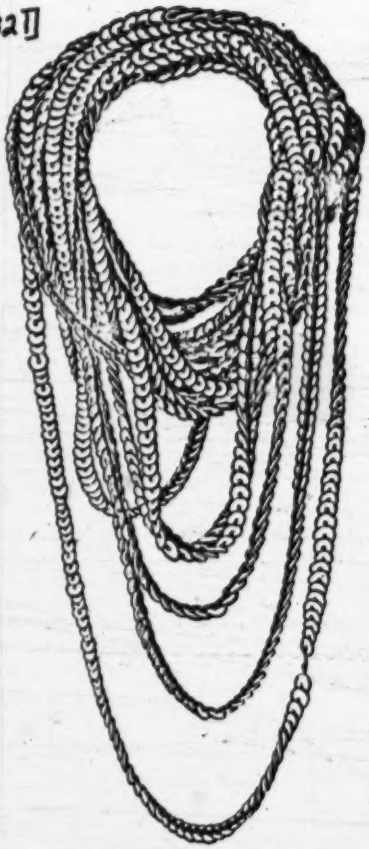

Fig. 56. Ornament consisting of two necklaces formed by perforated and threaded snail-shell spangles. One of the necklaces is 4 m 30 cm long, the other 4 m 64 cm. Choroti. Gran Chaco. Bolivia. Riksm. 03. 3. 45 & 46.

Fig. 57. Necklace of mussel-shell discs. Choroti. Gran Chaco. Bolivia. Riksm. 03. 3. 49.

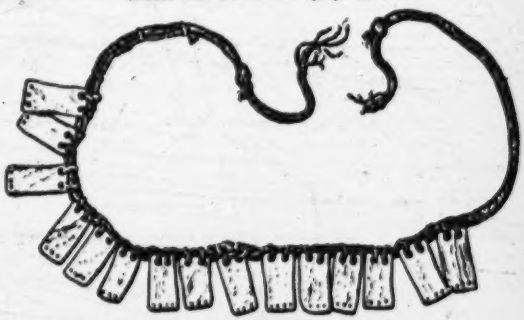

Fig. 58. Necklace of plates of mussel- or snail-shells. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 48.

mussel-shells. Necklaces worn by the women (figs. 61 and 62) as a rule consist of glass beads, but I saw men, too, wearing this kind of ornament (figs. 17 and 53).

The men adorned themselves with armlets, generally consisting of a narrow strip of birdskin, with the down, mostly white, left on (fig. 151). But armlets made out of white-haired oxhide, or palm leaf (fig. 24), were also of common occurrence. Another kind of armlet, which I less frequently saw, consisted of a narrow woollen-band, with snail-shell spangles sewn on (fig. 171, the man on the left in the foreground).

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Round the ankles the men often wear birdskin bands, in appearance similar to the armlets (fig. 30, the second man from the left). There may also be seen anklets made up from ostrich feathers lashed on to a thickish cord of caraguatá or wool (fig. 59). According to what several Choroti Indians told me, anklets are worn not only as ornaments, but also as a protection against snakebite. If a man wearing feathered anklets should happen to step upon, or close to, a snake, the latter, my informants assured me, would almost for certain first strike at the showy feathers. This warns the man of his danger, and he will generally have time to jump aside before the snake is ready to strike again. This belief is also found among the Lengua.[1]

Fig. 59. Anklet, made of ostrich feathers tied round a thickish piece of string. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 93. 3. 34, a.

The articles of dress, as well as the ornamental objects,[2] that I have described in this chapter, are, as I have said, only such things as appertain to the stronger sex; but one ornament, however, which to an equal extent is worn by men as well as women, is the finger ring made of lizard skin (fig. 60). These rings are made in a rather original manner. Anybody wanting rings, whether for himself or for giving away, kills a lizard. The part of the animals tail that in thickness about equals the size of a human finger, is cut, according to its segments, into slices from 2 to 5 mm wide, and then the inside of the sections is removed. The rings are now ready for use, and it only remains to try them on for the best fit. As we know, the tail of a lizard tapers towards the tip, and this makes the rings differ somewhat in size, so that it is no difficult matter to find rings to fit any sizes in fingers.

Fig. 60. Finger ring of lizard skin. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 93. 3. 35.

[1] Grubb (1), p. 72.

[2] Many of these ornaments have a magical character. In Chap. VI I shall deal with this point more fully.

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291 [77] The women of the Choroti, especially the younger ones, have very generally adopted the woman's garment common among the Chiriguano, which is called »tipoy» and consists of a cloak-like covering hanging from the shoulders, where it is secured with cactus spines (fig. 62). The cloth forming the material of these tipoys, is an acquisition by the Choroti from the whites. I saw Choroti girls that had not troubled to sew their tipoys together, but thought it sufficient to pin the edges together with cactus spines down one side. Occasionally the girls wore the tipoy from the hips, as seen in fig. 61. The original garb of the Choroti women consists of a deer skin, or a length of home-woven woollen cloth wrapped round the hips (fig. 21), leaving bare the upper part of the body. Nowadays one only sees elderly women dressed in this way.

301 Contrasted with the men, the women have very few, and very unpretentious, ornaments. The girls wear a necklace or two, made from glass beads or porcelain buttons (fig. 61 and 62), and lizard-skin finger rings. Now and again one may see a woman with armlets, or finger rings, consisting of threaded glass beads, pieces of leather or palm leaf (fig. 62, the girl on the extreme right, and fig. 152).

302 304 The practice of decorating the face by tattooing and painting is common to both sexes. The men, however, are not always tattooed, which, on the other hand, is the case with the women. Painting of the face, which may safely be assumed to possess magic significance,[1] is performed by men as well as women on all important occasions.

304 Whilst it is the prerogative of the men to adorn themselves with the showier ornaments, it is generally the women who display the more abundant tattooing (cf. figs. 63—66 and 71—76). The tattoo marks that a fully grown Choroti woman wears on her face, have not been worked on her all at the same time, but during different phases of her life as she grows up. According to Nordenskiöld, the Choroti begin tattooing their children already when the latter have reached an age of from 5 to 7 years,[2] and thenceforth various designs are added as the years pass. As a rule, the men are not tattooed, or they may have just a few tattoo marks (fig. 63), and it is exceptional to see Choroti men as profusely tattooed as the men in figs. 64—66.[3] As I have already pointed

[1] Se Chap. XII.

[2] Nordenskiöld (13), p. 68.

[3] Compare, with this for instance, Lehmann-Nitsche (1), pp. 80 and 81, and Nordenskiöld (13), pp. 69 and 70.

[text continues on p. 75]

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Fig. 61. Choroti girls, wearing »tipoys» from the hips. The girl farthest on the left is wearing a necklace of porcelain buttons. The other necklaces consist of glass beads. Gran Chaco. Bolivia. Photo. E. v. R.

Fig. 62. Choroti girls with »tipoys» fastened over the shoulders with cactus spines. The necklaces are of glass beads. Gran Chaco. Bolivia. Photo. E. v. R.

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Fig. 152. A Choroti girl who has put decayed tree stumps on top of the fire in order to preserve it until again needed. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[p. 134 is blank]

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In previous works on the Indians of the Chaco, there is to my knowledge nothing said about the Choroti possessing whistles made of bone. These Indians do, however, use such whistles, which are made of bird bones (fig. 164). These whistles are open at both ends, so that two notes can be produced; if one closes the lower end of the whistle with the finger, one naturally obtains a note differing from the one given by the open whistle. In the bone whistles, the blowing-end is partly stopped up with wax.

Fig. 165. Disc-shaped, wooden whistle; on one side mounted with a piece of tin, the other side unmounted. On the figure, the dotted lines mark the boring. This object is meant to be worn as a breast ornament string round the neck. The carrying string consists of red, woollen yarn, and is decorated with a few snail-shell spangles. Choroti. Gran Chaco, Bolivia. 1/2. Riksm. 03. 3. 214.

Fig. 165 shows a remarkable type of whistle, which is very common in the Chaco. This whistle consists of an oval, flat piece of wood, bored through in the way seen from the figure. On one side it has a sheeting of tin, which originally had a serrated edge all round, like a cog-wheel. Most of the teeth are, however, worn away, but on the left half of the mounting the serrations are almost intact. The mounting is set on the wood by means of some waxy substance. The reverse side of the disc is without any mounting or other ornamentation. For carrying this whistle there is a plaited cord of red, woollen-yarn, which is decorated with a few snail-shell spangles. The object in question is evidently very old, as one of the holes which originally served for fastening the carrying cord has become useless through the cord having worn through the wood, which is of very great hardness, in the way seen from the figure. A new hole for the cord has therefore had to be bored. Oval whistles of this kind, ornamented on one side, are worn as breast ornaments by most Choroti, and are also found among the Ashluslay, Chané, Chiriguano, Churápa, Lengua, Mataco, Tapiete, Toba and Yuracáre. [17L 301]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

534 and Yuracáre. Outside the Chaco, and the regions bordering on it, this type of whistle has not, so far, been found.[1] It is noteworthy that, generally speaking, these whistles have been given a similar, very characteristic, ornamentation. It is only such whistles as originate from the Yuracáre that form an exception from this rule.[2] The ornamentation, which is usually carved in the wood, in low relief, consists of a figure more or less [531] resembling a cogwheel, with a wheel-cross in its centre (fig. 166). Such whistles as have a tin mounting are sometimes without the wheel-cross (see fig. 165).

789 This ornamentation is probably of some magical significance.[3] For the 534 fact is that these disc-shaped whistles are not only a combination of 531 ornament and musical instrument, but they 301 are also put to magical use. Karsten relates that the Choroti Indians, whilst performing their exorcismal dances, now and then blow their disc-shaped whistles to scare off evil spirits.[4]

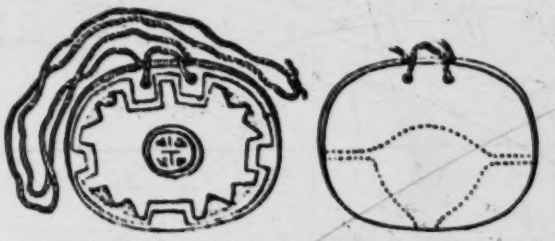

Fig. 166. Disc-shaped, wooden whistle, one side with carved ornaments, the other side plain. Used like the whistle in fig. 165. Choroti. Gran Chaco, Bolivia. 1/2. Gothenburg Museum. D. 793. From Nordenskiöld (11), fig. 56.

In a monograph on whistles I have endeavoured to show that the practice of carrying ornamental whistles is of remote antiquity in America, and I think I have adduced very strong evidence of the so called »mesh-spacers» of antler or polished stone, that have been found in graves in North America, being, as a matter of fact, used as ornamental whistles, and possibly of a magical character.[5]

534 The disc-shaped Choroti whistles are blown at the lower aperture (see figs. 165 and 166), and with the same technique in blowing as described in connexion with the description of the flute in fig. 162. By the closing

[1] Nordenskiöld (11), pp. 188 and 189.

[2] Nordenskiöld (11), p. 188.

[3] Of the wheel-cross having been, and still being, also in America the characteristic symbol of the sun, we possess reliable proof. See e. g. Frobenius (1), fig. 298. Cf. also d'Alviella (1), pp. 76 and 77; and Holmes (1), plate XXXVIII.

[4] Karsten (1), pp. 34 and 35.

[5] von Rosen (8), p. 114 et seq. and Gustafson (1).

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 179. A girl, and the lover she has chosen for herself. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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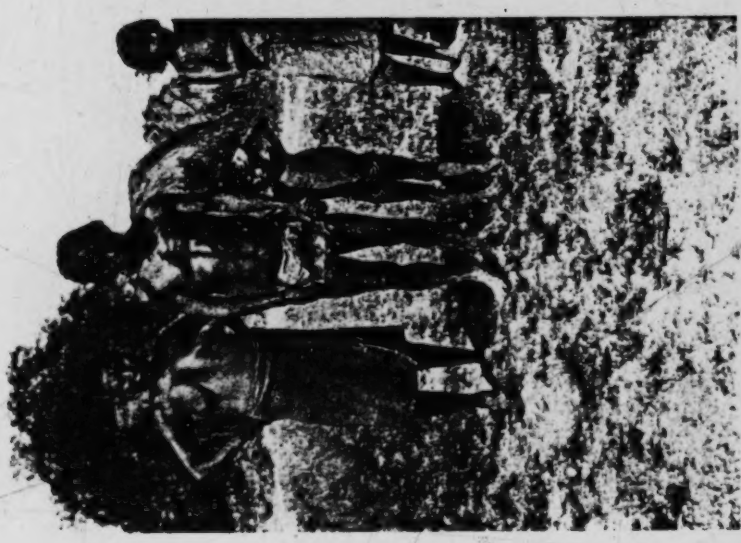

Fig. 178. A chief, with his son and two of his three wives. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Steinen,[1] Koch-Grünberg[2] and Karsten[3] have made specially thorough research into questions connected with this matter.

From primitive peoples it is, however, exceedingly difficult to obtain thoroughly reliable information. In order to get rid of a tiresome questioner, a negro, or an Indian, will often reply in the way he thinks most pleasing to his interrogator. Information received by means of an interpreter, is not unfrequently unreliable. This explains how statements which are absolutely erroneous have found their way into the works of even the most painstaking ethnographers. Another pitfall consists in drawing hasty conclusions based on analogies. There is this to be remembered; that primitive peoples' process of thinking sometimes runs along lines which deviate entirely from those of civilized man, for which reason conditions which, to us, appear analogous may, to the primitive mind, not necessarily appear as being in any way connected.

Although it has not yet been conclusively proved that all Choroti ornaments are of a magic character, it is nevertheless not improbable that such is the case. About many of the ornamental objects of the Choroti there are thoroughly trustworthy proofs as to their magic character. When from two or more members of a tribe circumstantial and practically identical, accounts of the magic properties of some ornamental object have been obtained, there can, of course, be no hesitation in accepting that the object in question is, by the Indians, regarded as a kind of amulet.

Among the finest of Choroti ornaments possessing a magic character I am inclined to class the frontlets and hair-nets of red woollen fabric (figs. 41, 46 and 47) that the Choroti use on occasions of especial importance. Several Choroti stated to me that these full-dress articles of apparel were worn not only as ornaments, but also as charms against evil spirits, and the same belief prevails among the Lengua as regards *their* ornaments of a corresponding kind (see fig. 42).[4]

That the Choroti regard their ear-lobe discs (see figs. 53—55) as possessing magic properties, I have already stated in connexion with my account of the character of those ornaments (pp. 62—66).

[1] E. g., von den Steinen (2).
[2] E. g., Koch-Grünberg (3).
[3] Karsten (4).
[4] Grubb (1), pp. 70 and 71.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

301 751 As regards snail- and mussel-shell necklaces (figs. 56—58) it should be specially mentioned that those of the first-named kind, at least, are by the Choroti looked upon as amulets for warding off illness and other evil things.[1] It is not improbable that necklaces made out of glass beads, which have been obtained from the whites, are also held to be amulets. This because of the fact that, among many primitive peoples, the belief has been observed that such glass beads as in modern times they have acquired by way of trading[2] possess magic properties,[3] as well as do the glass-[4] or stone beads[5] that they themselves have found in ancient dwelling-site deposits or graves.

Occasionally the Choroti wear anklets of birdskin, or ostrich (Rhea) feathers tied together (fig. 59). On page 71) I have mentioned that [825] these anklets are not exclusively ornaments, but that they also serve a purely practical purpose. The fact is that the Choroti, as well as other Chaco Indians, regard them as a protection against snake-bite, in that a snake is more likely to strike at the feathers that are on the anklet than at the leg, or foot, of the one who is wearing it. Karsten states, on the authority of Grubb, that the Lengua for the same reason wear anklets made of feathers. But to Karsten this natural explanation is not sufficient, for he remarks that Grubb might have added that these anklets are, at the same time, looked upon as amulets, because the Indians believe that an evil spirit accompanies the snake venom in entering the foot of a person bitten.[6] Karsten endeavours to show that all feather ornaments are, by the Choroti Indians, regarded as magic objects.[7]

006 Most primitive peoples ascribe magical properties to many of their belongings. For example, our Viking forefathers largely regarded their weapons and other equipment as possessing magical powers. It is well known that the Vikings believed that, for instance, swords, and other edged implements, in some magic way could give their owners protection against evil spirits. But the main purpose of swords and edged tools was

[1] Karsten (4), p. 139.
[2] See for example von Rosen (4), p. 303.
[3] See fig. 182: 30—31, and text on pp. 169 and 170.
[4] See, e. g., von Rosen (1), p. 351.
[5] See, e. g., von Rosen (1) p. 200.
[6] »He might have added that they are at the same time regarded as magical charms, since with the snake's poison an evil spirit is believed to enter the foot.» Karsten (4), p. 119.
[7] Karsten (4), Chap. III.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

as a rule a practical one, although the articles might, *apart from that*, be of magic use. In the same way many of our Northern ornamental objects might be attributed with a magical character, although my belief is that, e. g., the »heirloom» silver ornaments of our peasantry were more appreciated because of their decorativeness than for any supposed magic properties of theirs. Naturally, also among us there were then ornaments (e. g., Tor's hammers) whose supernatural-, was more obvious than their decorative, character, and such cases may be considered as typical amulets.

These points of view I also consider applicable when reviewing the ornaments of the Choroti.

For it appears to me that, in the case of the Choroti, a differentiation can be made between typical amulets and ornaments to which magic properties are ascribed.

Objects of the latter kind are always worn in full view; they are usually carefully made or worked, and have, as a rule, a decorative, often startlingly showy, appearance. If one asks a Choroti why he is wearing such an ornament, the answer which one as a rule obtains is merely that it looks well, or that it is useful to wear. Occasionally one may get the reply that the ornament is of use against evil spirits, but in such cases it is my firm opinion that, to the Indians, the object's magic character is of less consequence than its being pretty or making a pompous show.

Such objects as I should like to call typical amulets are exclusively, or mainly, of a magic character. Amulets of this kind are often, although not always, entirely devoid of all pretence to beauty. They not infrequently consist of unworked objects, from nature, such as claws of animals, head-carapaces of armadillos, bits of skin, tufts of hair, and other things. They are often worn so as to be out of sight, say in a bag, or under the clothes. Figs. 183 and 184 represent typical specimens of this kind of amulet. To distinguish between these two groups of objects *only from their appearance*, is, however, quite impossible. It must be remembered that claws, teeth, etc., are capable of being put together and arranged into ornaments which are very attractive from an esthetic point of view, but as the supposed magic power of the claws and teeth ought rather to increase than decrease by being placed in contiguity, ornaments that have been composed in this way would constitute implements in which the magic qualities were valued by their owners far more than the esthetic.

301 789 That in primitive man there is an instinct for self-ornamentation, I consider cannot be doubted. In children this instinct is found, and it is possibly also traceable among animals.[1]

[224]

Fig. 183. Hunting amulet. A jaguar or puma claw. Choroti, Gran Chaco, Bolivia. 1/1. Riksm. 03. 3. 399.

Fig. 184. Hunting amulet. The carapace of an armadillo's head. Choroti, Gran Chaco, Bolivia. 1/1. Riksm. 03. 3. 400.

000 According to my opinion, flowers and snail-shells were certainly used as ornaments by our race long before the dawn of such mental development as made possible the idea of supernatural things. Prior to this, no »magic» properties of any kind were, of course, ascribable to natural objects. The faculty of sensing beauty in a material form is bound to be

[1] Apes and monkeys, in captivity, are sometimes said to try decorating themselves with necklaces, hats, etc. This may, however, result only from a desire to imitate. More remarkable, it seems to me, is that elephants, camels, horses and dogs are said to show evident satisfaction when gaily decked out.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

XVII.

Objects for deforming the Body.

The Chaco tribes here dealt with wear no labrets, do not bore through the nasal septum, do not deform the head, and do not strap their calves in an unnatural way. The (1) Choroti, (2) Ashluslay and some (9C) Mataco Indians (Mataco-Guisnay), however, bore the flap of the ear, all the men, and some of the women, wearing blocks of wood or pieces of cane in, it so that the flap surrounds the objects like the tyre of a bicycle wheel.

Ear appendages (Map 18) of the kind here in question are not worn by any other Indian tribe I visited. Some of the Toba (X 8) wear them, but I did not visit this section. Several of the tribes known to me, however, wear rings, small blocks of wood or teeth etc. in their ears.

The custom of forcing the flap of the ear round a block of wood or the like, was universal in old (18) Peru[1]). The Indian chiefs in the Inca kingdom, who wore these ear-blocks, were called «orejones» by the Spaniards. Numerous ear appendages of this kind[2]), as well as earthenware vessels with figures of Indians thus adorned[3]), have been found on the Peruvian coast (A, K). For the rest, they are found in Brazil among the Botocudo (45)[4]), among the (67) Suyá[5]),-

[1]) Cobo, Vol. 4, p. 159.
[2]) Baessler, Pl. 27, fig. 399—403; Reiss and Stübel, Vol. 3, Pl. 78.
[3]) Also in (J) Tiahuanaco. Posnansky.
[4]) Wied, Vol. 2, p. 5.
[5]) v. d. Steinen (2), p. 207.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XIX.

Trinkets and Knick-knacks.

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The Choroti and the Ashluslay make use of a number of trinkets[1]) of various kinds, made of feathers, shells, etc.

Snail shell beads, made of the shell of the Borus oblongus, are used in the Chaco for necklaces and other ornaments. I have seen these beads among the Choroti, Mataco, Ashluslay, Toba, Tapiete, Chiriguano, (rarely) and Huari; LERY[2]) SOARES DE SOUSA[3]) and STADEN[4]) mention them from the Tupinambá, HAWTREY[5]) from the Lengua, AZARA[6]) from the Payaguá, SÁNCHEZ-LABRADOR[7]) from the Mbayá, COMINGES[8]) from the Guaná, V. D. STEINEN[9]) from the Bakaïrí and the Nahuquá. MEDINA[10]) following NAJERA, relates that the Araucanians had them at first. CASTILLO[11]) mentions them from the Mojo GUMILLA[12]) from

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[1]) I can only mention the most important here.

[2]) p. 99.

[3]) p. 284.

[4]) Vol. 2, p. (16).

[5]) p. 282.

[6]) (1), p. 127.

[7]) Vol. 1 p. 182.

[8]) p. 306.

[9]) (3) p. 182.

[10]) p. 171.

[11]) p. 325.

•Sartas de lentejuelas hechas de caracol blanco, mayores que las ordinarias en el cuello.

[12]) Vol. 1. p. 141.

[text continues on p. 126]

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

the Indians on the R. Orinoco, BIET [1]) and BARRERE [2]) from the Galibi. [3])

RIVET[4]) has published a résumé of the finds of these snail shell beads revealed by archaeological excavations in S. America. He mentions finds from a number of places in Columbia, Ecuador, Venezuela, Peru, Bolivia, Argentina and Chile. For the details I refer to his work.

To RIVET's resumé I can add Caipipendi, Bolivia, where I found innumerable snail shell beads in the graves.

The Chaco Indians here dealt with, the Choroti and Ashluslay sometimes sew these beads onto material (Fig. 32) as *spangles* (Map 20). I have seen these spangles, moreover, among the Mataco and Toba but not among any other tribe visited by me.

Fig. 32. Piece of a frontlet with spangles of snail shell beads. Choroti. G. M. (D. 96) 1/2.

The same custom was known on the Coast (A) of Peru[5]). MEDINA[6]) following ERCILLA mentions it from the (10) Araucanians, CABRERA[7]) from the «Juries».

The (8) Lengua Indians also sew snail shell beads onto material.[8]) The (12) Mbayá seem to have done so to a still greater extent than is now customary in the Chaco[9]). Spangling probably reached the Chaco from the culture zone in the west.

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[1]) p. 353.

[2]) p. 194.

[3]) The résumé could be supplemented to a very great extent by going through the unpublished collections in the large museums. I therefore do not include a map of the geographical distribution of the snail beads.

[4]) (4). p. 259.

[5]) REISS AND STÜBEL, Vol. 3. Pl. 79.

[6]) p. 171.

[7]) p. 140.

[8]) GRUBB p. 70.

[9]) SÁNCHEZ LABRADOR, Vol. 1. p. 282.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

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These round beads are cleverly threaded (Fig. 33).

The Ashluslay and the Choroti also wear necklaces of square snail shell beads (Fig. 34) with two holes in each.

Fig. 33. Part of a necklace of snail shell beads. Choroti G. M. (D. 90) 1/1.

The snail shell bead necklaces are the kind most characteristic of the Indians here dealt with, but the Ashluslay and Choroti have quite a number of other necklaces, of seed grain, teeth, pieces of straw and leaves, glass beads, etc. Most Indians, save the Fuegians, probably also wear perforated teeth as ornaments. I have some in my collections from the Choroti, Ashluslay, Atsahuaca, Chacobo, Cháma, Guarayú (Pauserna), Huanyam, Huari, Mataco, Tambopata-Guarayo, Yamiaca and Yuracáre. Perforated teeth are here included among the cultural elements about whose origin I know nothing certain. The same is true of trinkets of seeds, pieces of straw, etc. At present the geographical distribution of these objects cannot be determined in a satisfactory manner. This is the more impossible without going through the unpublished collections of all the large museums.

Fig. 34. Piece of a necklace of snail shell beads. Choroti G. M. (D. 70) 1/1.

The Choroti and the Ashluslay Indians often wear a broad woven band tied round the head and ornamented, occasionally with fea-

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2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

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thers, not rarely with snail shell beads. The custom of wearing these *frontlets* undoubtedly derives from the mountain culture.[1]) (Map 21) In the Inca realm the frontlet was a token of honour.[2])

I have seen these frontlets among the (1) Choroti, (6) Mataco, (7) Toba, (3) Tapiete, (2) Ashluslay, (4) Chiriguano and (5) Chané, but among no Indians in N.E. Bolivia. The woven frontlet is, moreover, known from the (17) Abipone[3]) (26) Patagonians[4]) (10) Araucanians[5]) (8) Lengua[6]) (21) Cainguá[7]) and (6 V) Guaná[8]) Numerous frontlets have been found on the coast of Peru (A)[9]).

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Fig. 35. Hairnet. Ashluslay. G. M. (B. 94). 1/1.

The idea underlying the beautiful hair-nets decorated with snail shell beads (Fig. 35) which are sometimes seen among the Choroti and Ashluslay, probably also reached these Indians from the culture zone in the west, where they had hair-nets[10]) as well as the same

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[1]) Cobo Vol. 4. p. 162; Uhle (2) p. 39.

[2]) Pelleschi compares the frontlets of the Chaco Indians with those that were used by the Incas. His explanation, however, of the occurrence of this cultural element in the Chaco, is not that the Indians in the Chaco learnt the use of the woven frontlet from the Incas, but runs as follows: »Now this custom must have pre-existed among some at least of the primitive peoples of the Empire, since we find it here in the Chaco, and we attribute to the Incas merely the law as to its use; their system being to regulate every person and everything by laws.» p. 24.

[3]) Dobrizhoffer, Vol. 2. p. 130.

[4]) Outes (3). p. 254; Falkner, p. 111.

[5]) Medina p. 168.

[6]) Gruber, p. 70.

[7]) Outes and Bruch (5) p. 94. fig. 77.

[8]) Cominges, 306.

[9]) Reiss and Stübel, Vol. 3. Pl. 75.

[10]) G. M. (10. 9. 78); Reiss and Stübel, Vol. 3. Pl. 30 fig. 2, 9 and. 10.

[text continues on p. 130]

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

technique in knitting as is seen in the hairnets in the Chaco[1]) on the Peruvian coast. The Lengua Indians have very similar hair-nets to those of the Choroti and Ashluslay[2]).

RADIN[3]) mentions hair-nets like caps from the Suyá, Yurúna and Karajá. They are also found among the Mataco[4]).

The use of *tassels* (Fig. 36) on cords of various kinds is clearly a custom that came to the Chaco from the culture zone in the west. Within the area of my investigations I

Fig. 36. Hair-band with tassels. Ashluslay. R. M. (A. 5). 1/2.

Fig. 37. Hair-band with tassels. Quichua mestizo. Calilegua. N. Argentina. R. M. (n. 12). 1/2.

found these tassels among the Choroti, Ashluslay, Mataco, Toba, Chiriguano, Chané, Aymara and Quichua (Fig. 37) but among no tribe on the plain north of Sta. Cruz de la Sierra. Tassels are common on the textile fabrics found on the Peruvian coast[5]).

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[1]) G. M. (P. 1.)
[2]) HAWTHORN, p. 282.
[3]) p. 929.
[4]) R. M. (03. 4. 412), R. M. (03. 4. 413).
[5]) See, e. g. REISS and STÜBEL, Vol. 3. Pl. 75. fig. 4. 5. 9.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

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The tassels of the Ashluslay, here depleted, are similar to those used on their head-bands by the Quichua mestizos in the Calilegua Mountains of N. Argentina (Fig. 37).

The Choroti sometimes wear an ornament on the forehead[1]) in the form of a *thread-cross* (Fig. 38, Map 22).

The distribution of the thread-cross throughout the world has been studied by Foy. From S. America he gives: (55) Arawaks (Guayana), (13) Karajá (15) Kayapó, (14) Bororó, (75) Angaité, (1) Choroti, (6), Mataco-Vejos, (A) Peruvian coast and (T) Antióquia in Columbia.

It is notable that the thread-cross commonly occurs on the Peruvian coast together with the so-called mummy packets. It probably had a religious significance there.

I will return later on to the question of the origin in the Chaco of the thread-cross.

Fig. 38. Thread-cross, frontlet. Choroti, G. M. (D. 143). 1/4.

The young men of the Choroti and Ashluslay use *plumes*, of course. Feathers are sometimes sewn to the frontlet. Ostrich feathers, with cuttings in them, are often sewn into the frontlet. SÁNCHEZ LABRADOR[2]) speaks of them among the Mbayá. Round the instep and the upper arm the young men often wear plumes.

Plumes round the feet are very characteristic of the Indians in the Gran Chaco. Among others, HAWTREY[3]) mentions them from the Lengua, and DUCCI[4]) from the Toba.

The Ashluslay and the Choroti often wear a »brush» of hair or feathers stuck

[1]) The thread-cross was possibly not only an adornment among the Choroti, but also an amulet. However, as I heard nothing from the Indians to that effect, and as they have no compunction in selling thread-crosses, I look upon the thread-cross for the present as an ornament.

[2]) Vol. 1. p. 214.

[3]) p. 283.

[4]) p. 10.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

in the frontlet. Similar adornments are customary among the Lengua[1]). I have not seen this species of adornment outside the Chaco.

The plumes seen in the Chaco differ considerably from those seen among the Indian tribes in N.E. Bolivia. Here we almost entirely miss the use of parrots feathers, and yet there are very gay-coloured little parrots in the Chaco. Ostrich feathers are chiefly used. As basket-weaving is unknown, the feathers are never mounted, as so often in Brazil, on woven basket-frames. But, on the other hand, it is customary, as we have observed, to fasten the feathers onto some material, a custom I never observed among the Indians of N.E. Bolivia.

The custom of fastening feathers onto material, appears to me to have originated in the mountain culture.

A common material for making ornaments in the Chaco, is hide and leather. In my collections from the Choroti and the Ashluslay, there are foot-ligaments, wristlets and armlets of leather, and caps and frontlets of hide, particularly jaguar skin. The leather armlets, as also often other adornments, such as the ear-blocks, are covered with pieces of tinplate.

SÁNCHEZ LABRADOR[2]) is of the opinion that this custom derives from Peru. The assertion is of interest, as this is the first time, as far as I know, that anyone has adduced ethnographical proofs of Inca influence in the Chaco.

Few adornments are worn by the women in the Chaco. The Ashluslay women have armlets of strips of deer-skin. DUCCI[3]) speaks of these from the Toba, and, according to him, they are worn as amulets against lightning. I have not seen them elsewhere. The women occasionally wear necklaces of seed-grains.

Both men and women wear *rings*, which consist of seg-

[1]) HAWTREY, p. 282.
[2]) Vol. 2. p. 289.
[3]) p. 10.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

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ments of the skin of lizard's tail. I have not seen such rings outside the Chaco. From books I only know them from the Karajá[1]) and the Šavajé[2]). I have not attempted to determine their geographical distribution. As in similar cases, this can only be done by working through the collections of all the large ethnographical museums. Few writers of books give any particulars about such unimportant objects.

[1]) KRAUSE, p. 439.
[2]) Ibid. p. 358.

2: Nordenskiöld E-5 (1908-1909)1919
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being thus rare objects, as e. g., on the table-lands of the Andes. One calabash which the Mataco-Vejos[1]) have mended was obtained by them originally from the Chané. It is beautifully ornamented and thus, probably, appeared to them more valuable than their own calabashes. It was therefore considered to be worth the trouble of mending.

Feather-work.

There is one small work[2]) on different kinds of feather-technique in S. America. It is not, however, full enough to give information as to the distribution of different forms of this technique. Nor am I in possession of sufficient data of comparison to be able to draw a map showing the distribution of the different methods of binding feathers.

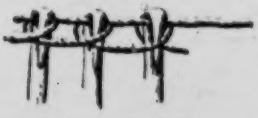

Fig. 69. Illustration showing how the feathers are bound in a footband.

From fig. 69 we see how feathers are bound by the Ashluslay and Choroti into footbands (ankle-ornaments), girdles and the like. It is usual, also, to bind ostrich feathers quite simply around a string. The footbands are partly made in this wise.

In the Chaco it is not uncommon to sew feathers on to cloth. Among the Indians I have visited elsewhere in S. America, I am not aware of this custom. In ancient Peru feathers were often sewn on to mantles, etc.

A peculiar custom among the Indians of the Chaco — the Choroti and others — is that of cutting notches out of the feathers in their brow-bands exactly like some of the North American Indians. In S. America I only know the custom from

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[1]) R. M. (M. 1048).
[2]) Mead (2).

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

other Chaco tribes and from Guiana[1]). As regards the Chaco this custom is mentioned by SÁNCHEZ LABRADOR from the Mbayá[2]).

Leather-making.

The Choroti and Ashluslay do not understand the art of tanning. They show skill, however, in making leather soft by scraping. I did not observe any point of anthropogeographical interest in their method of preparing leather.

[1]) GOEJE (1), Pl. 3, 1, 2. Ojana.
[2]) Vol. 1, p. 214.

1: Métraux--324 E-5 (1929) 1930 SF10 Chiriguano SF10
Guiana SR1
Choroti SK6
Ashluslay SK5

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serve as amulets, and, in any case, as ornaments. (Roth, pp. 497-499, Figs. 241-244 and p. 270; Koch-Grünberg, 2, Vol. II, p. 244.) In the same way the Chiriguano Indians decorate their huts with these figures, which they take care to have blessed. Exactly as in Europe they keep palm branches as lucky charms. Rosen (1, p. 61, Fig. 51) publishes a similar straw amusement which he found among the Choroti and which was pointed out to him as an ornament worn on the forehead. This explorer suspects the exactitude of this information and supposes that a ritual object is concerned. In reality, it is only a "flower," which the Choroti described by Rosen probably received or bought in some Chiriguano mission. It is enough to compare the figure of it that he gives us and ours in order to be convinced of this.

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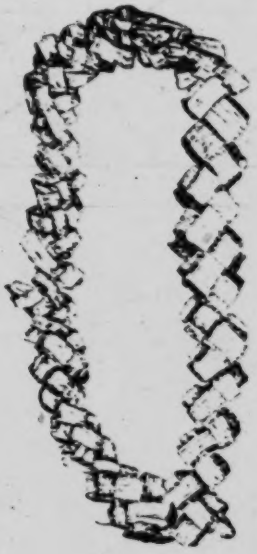

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Fig 119. Wreath of plaited palm leaves (amusement or ornament?). Ashluslay. Prov.: Estero Patiño. (1/4 nat. size.)

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Figures made of palm leaves are not, however, unknown to the other Indians of the Chaco. The Ashluslay sold me a diadem braided according to this principle (Fig. 119) and Rosen (1 Fig. 44, p. 48) reproduces an identical head-ornament which he bought from a Choroti tribe.

Choroti SK6
Mataco SI7
Güisnais

Ci /321 cont./

301 Doubtless through being very close to the Toba, they
302 pierce their ear lobes, in which they put pieces of wood, and
171 they also stain their faces.

Ci In the expeditions to the Paraguay they have never shown
648 themselves to be hostile to the whites and soldiers; rather they
[464] have lent important services and it was they who saved the life of Señor Touvar and his companions when they became separated from the expedition. Therefore the reduction of these Indians to civilized life would be very profitable.

Güisnáis

M
131 These Indians occupy the western bank of the Pilcomayo
101 facing the Choroti Indians and southwest of the region occupied by the Mataco. The geographic degree of their territory, with a very slight difference, is the same as that of the Choroti, since they are separated from the latter only by the river bed.

M They are a division of the Mataco; they speak the latter's
101 language with very little difference; their customs are nearly
181 identical and their number quite small. They are of a peaceful
241 nature like the Choroti, and like them, they plant gourds and
231 other vegetables. They also devote themselves to the raising of
197 domestic animals, such as cows, horses, sheep, goats, and chickens.

M Even the Güisnáis frequently come out for jobs in the
167 Argentine Republic, from where they also bring back weapons,
177 in order to use them particularly in the woods, killing birds, wild
464 boars, deer, and other quadrupeds.
224

They have more religious ideas than other tribes, and it
M seems that their great-grandparents might have belonged to
174 some former Argentine mission, because, more than others, they
771 recognize a true divinity. /322/ Nonetheless in their great
776 ignorance they confuse ideas, and in great fear they recognize in
[756] sorcerers a power that they do not have.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
Choroti SK 6

In subtropical land like the Chaco, where the weather is often very hot especially during the »summer-times», dress is naturally of the most simple kind. Both among the Mataco, the Choroti, and the Tobas, the most important article of the man's clothing is a small cotton waist-cloth which serves as a covering and protection for the genitals. In addition to this waist-cloth the Mataco and the Choroti formerly wore a kind of broad fringed leather-belt round the loins, whereas the Tobas covered the genitals with a small apron of skin or stuff. The rest of the body is among all the tribes generally kept entirely naked or is only covered by the usual necklaces and other ornaments, or by red *urucú*-painting. When the weather is cold, and on festival occasions, the men also wear big woollen blankets with interwoven linear patterns mostly in red colour. The blankets of the Lenguas and other tribes in eastern Chaco often show designs denoting venomous snakes etc., but such patterns are unknown to the Choroti, and where they are found they have originally been obtained from the interior of the country. Weaving is among all Chaco tribes exclusively a work incumbent on the women.

The Choroti man adjusts his blanket in different ways. In cold or wet weather it is wrapped round the body so as to cover one or both shoulders; when it is hot, he allows it to fall in a double fold from his waist, where it is either fastened by a belt or by tucking the folds of one corner into the other.

The usual clothing of the women is a short cotton petticoat reaching from the waist to a little below the knees, the upper part of the body remaining unclothed. This petticoat formerly consisted of deer or nutria skins sewn together, but since the present-day Choroti are poor hunters such skin loin-clothes are now rarely seen. According to Mr. Hunt, young Choroti girls have nowadays adopted the female dress of the Chiriguano (Avas), a kind of sleeveless, waistless gown caught at the shoulders with a couple of safety pins and known under the name of *tipoy*. At the time when I travelled in the Chaco these *tipoys* were only known to the women among the Bolivian Tobas, but not to the Choroti women, who always kept the upper part of their body uncovered and, in opposition to the Toba women, never showed any shame at displaying their bare breasts. A few necklaces, beads, or twisted feathers replace clothing on these nude parts of the body. Many of the personal ornaments of both men and women have the character of amulets or charms and will therefore be dealt with later on in connection with the religion of the natives.

Much the same may be said of the dress of the Mataco and the Tobas. Both of these tribes, and especially the Mataco, have been influenced

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

The *ear-tubes* which are worn as ornaments for instance by the Choroti, Ashluslay and Toba-Pilagá and which consist of wooden plugs or pieces of cane, sometimes of tremendous size, are likewise nothing but magical charms or amulets. This was clearly indicated by the Choroti, who told me that the ear-discs are worn to prevent the evil spirits, the *möhsek*, from penetrating into the ears. Their hugeness and peculiarity is evidently thought to act as a deterrent upon the spirits, and there seems to be the idea that the larger they are the more efficacious.

The Indians of the Pilcomayo use various kinds of *necklaces*, and it seems to be the rule that among the most primitive tribes, such as the Choroti and Ashluslay, they are more worn by men than by women, among the more civilized Tobas again more by women than by men. Speaking of the dress of the Choroti, I mentioned the large and costly kind of necklace consisting of snail's shells elaborately fashioned into small round buttons with a hole drilled in the centre and closely strung together. The necklace, called *lähslehuésle* in the Choroti language, is not only an ornament but at the same time a magical charm. The Choroti no doubt gave me the true explanation of their original significance when they told me that the necklace is a protection against sickness. The evil spirits, according to the idea of these Indians, preferably attach themselves to the throat or the chest, because catarrhs are very common in the Chaco during the dry season. The spirits are believed to enter into the body through the throat or the breast, but this is prevented by the protecting necklace. Hence, when a Choroti Indian sells his necklace or leaves off wearing it, his comrades say that he will most certainly soon fall ill. The same idea I found prevailing among the Mataco-Nocténes of Bolivia, where such ornaments are worn by both sexes. Thus the son of a chief, who was just at the age of puberty, one day appeared painted red in the face with *urucú*, and with a large necklace which covered the neck and the breast. When I asked the father why his son had put on these things, he answered: »It is in order that he may not fall ill». Both among the Mataco and the Choroti it is customary that children of both sexes go totally naked up to the age of eight to ten years, but nearly always they wear collars and facial paintings which most certainly are not »ornaments» in the civilized sense of the word.

Among the South American Indians in general it is a common custom to tie round a limb, for instance the wrist or the leg, a leather strap or some other kind of band, professedly with a view to making the arm or the leg strong. The Chaco Indians also commonly wear such ligatures

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 16. A man, in front of his hut. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 17. A man, with frontlet of birdskin. Choroti. Tatarenda camp. Gran Chaco. Bolivia. Photo. E. v. R.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 24. A boy and a girl (age probably about 10). The boy is wearing a frontlet and armlets, made from palm leaves. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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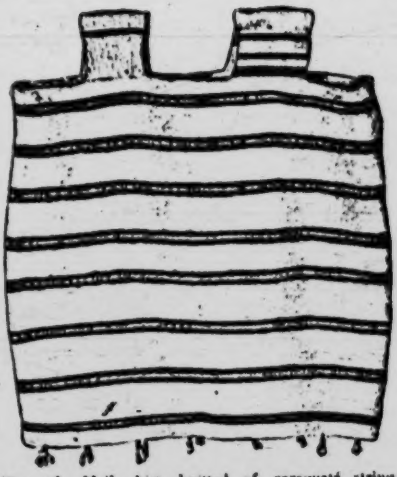

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Fig. 36. Mail shirt, knitted of caraguatá string. Worn principally as a protection against arrows. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 382.

It is worthy of note that the Choroti also manufacture another protective garment out of caraguatá, namely a sort of stockings. This footgear is put on for wading (in fishing), as a protection against the teeth of the terribly sharp-biting palometa fish.[1]

To protect the legs from spiny plants, I have seen Choroti using a kind of long deerskin leggings, laced on with leather straps. The legging here reproduced in fig. 38, which has a height of 71 cm, reached well above the knee of its wearer. Some of the Choroti make use of sandals,[2] but I have myself never seen them worn by these Indians.

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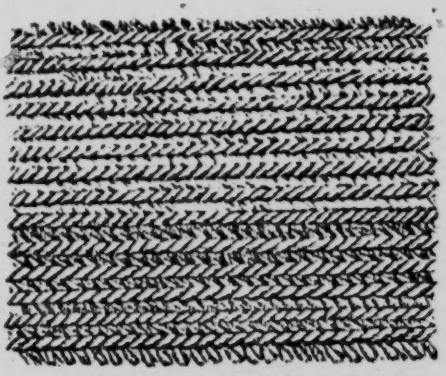

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Fig. 37. Enlarged detail of mail shirt, fig. 36. Natural size.

The men generally wear their hair of a medium length i. e., down to the shoulders, or the shoulder blades (figs. 16—18, 39 and 83) — but I have also seen Choroti with hair so long as almost to reach the waist. The hair is usually tied round with a woollen frontlet (fig. 39), or a frontlet of palm leaves (fig. 24), or birdskin (fig. 17), but it may also be worn loosely hanging down (fig. 53). Frequently the hair is tied into a brush-like bunch at the nape of the neck (fig. 39). Woollen frontlets are generally furnished with simple, tasteful, ornamentation (figs. 39

[1] Nordenskiöld (13), p. 119.
[2] Nordenskiöld (11), pp. 113, 114.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

and 40). Miss Agnes Branting, who has kindly examined the textiles here reproduced, found the frontlet in fig. 40 especially interesting, as similar fillets are woven by the peasantry in very many provinces of Sweden, for instance Scania, Halland, Wermland and Helsingland. Miss Branting writes on this matter as follows: »Fillets of this kind are made without any other implement than just any sort of object to which the yarn can be attached, say a weighted pincushion held on the knee. The weaving is begun from the centre of the fillet by crossing one yarn over another; for each turn a yarn is added (from a number fastened with pins) on either side. When the edge yarn has been reached, this is turned inwards, and the plaiting then proceeds from the edges towards the centre. This gives a certain firmness and compactness to the edges, and makes the middle portion slightly thinner, as may be noticed if looked at against the light.»[1]

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Fig. 38. Legging, of deer-skin with yellowish-brown hair-covering remaining. Worn for protection against thorny plants. Choroti. Gran Chaco. Bolivia. 1/4. Riksm. 03. 3. 383.

Sometimes the frontlets are decorated with snail-shell spangles, sewn on, although such pieces of magnificence as the frontlet here shown in fig. 41 are very rare. From fig. 42 can be seen the way this frontlet is meant to be worn. These very decorative snail shell spangles are made from the shells of a large, white land snail (Borus oblongus, fig. 43), common in the Chaco. The Choroti do not themselves make these snail-shell spangles, but obtain them through barter from other tribes.

Narrow frontlets of woollen-yarn (see fig. 30: the 3rd and 4th men from the left) or birdskin (see figs. 17 and 30: the boy who is fifth from the left) are of very common occurrence; less frequently seen are frontlets made from palm leaves, some of which are provided with chin-straps, so as not to slip easily off the head (fig. 44).

At dances and other festive occasions, the men are fond of wearing particularly handsome, broad frontlets or head ornaments of stiff or downy

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[1] Compare with this a method of hand weaving described from the Choroti by Erland Nordenskiöld. Nordenskiöld (13), p. 111.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

292 feathers, tied inside a woven or plaited fillet, usually no more than a
● 302 centimetre wide, of coarse caraguatá, or woollen-yarn (fig. 45).

And it is also principally at dances that the men of the Choroti wear a sort of knitted skullcaps of woollen-yarn, net-like, and with a chin strap.

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Fig. 39. A man with a woven frontlet of wool (greyish-white and brownish-black), and ear-lobe discs of wood. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[531] These hair-nets are often studded with snail-shell spangles (fig. 46), or the chin straps decorated with down (fig. 47). With the magic character of these and other ornaments from the Chorotis, I shall deal in a later chapter.

[should be Choroti — analyst]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

To the frontlets are affixed one or more feathers (figs. 32, 16—18, 24, 30 and others). These are obtained from many different birds, ranging from ostrich and white heron to domestic fowls. The feathers are often nicked,

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Fig. 40. Frontlet, of wool, with angular ornament in brownish-black and greyish-white. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 9.

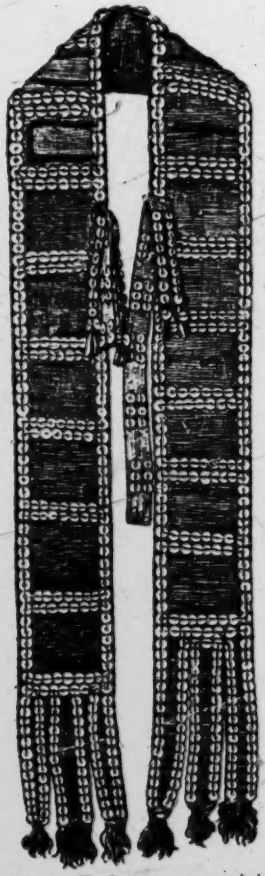

Fig. 41. Head ornament, consisting of a red, woollen, frontlet, 7 cm wide, with snail-shell spangles sewn on, and, in front, beset with turquoise-blue glass beads. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 10. 3. 134.

[531]

Fig. 42. A Lengua Indian with head ornament, »scalp lock» and whistle (the latter hanging round the neck on a string). From Hawtrey.[1]

[825]

Fig. 43. Borus oblongus, a white land snail, common in the Chaco. From its shell the Indians make small spangles, with which they adorn themselves. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 47.

[1] Hawtrey (1), p. 282, fig. 2.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

237 and tied with woollen-yarn on to a small stick or cane splinter (fig. 48),
292 for sticking into the fillet of the frontlet. The Indians take very great
302 care of their feather ornaments, and the easily damaged ostrich plumes
[415] (see front-page plate and fig. 49) are kept encased in bamboo. The plume-case reproduced in fig. 50 consists of a piece of bamboo, 50 cm long and 2.5 cm wide. At the upper joint there is a hole, 3.2 cm long and 1.2 cm wide, through which the partition wall has been removed. The bamboo chip cut out in making the hole near the bottom end, is tied over the hole with a thin strip of bast; whereas the upper hole is without such a lid. The lower hole differs from the upper, in that its edges, as well as the edges of the lid, are painted red. I presume that neither of these holes has been made exclusively for the purpose of facilitating the removal of the wall within the joints, but that they have also served to make easier the taking out of the feathers from the case. The painting red of the holes and lid edges has, as I shall show further on, probably been done with magic intent, for the safeguarding of the plumes.

Fig. 44. Frontlet of palm leaf, with chin strap. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 14.

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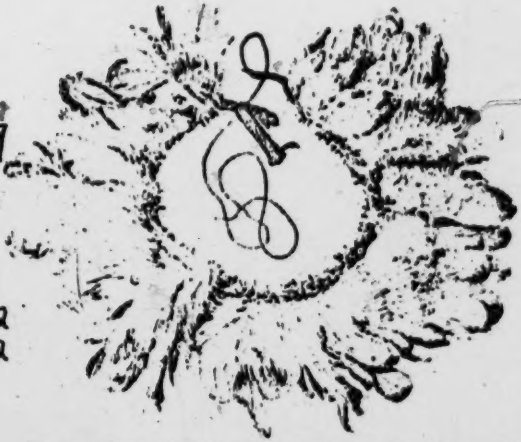

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Fig. 45. »State» frontlet, made of white and pink feathers and down from the pink spoonbill. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 15.

The curious object seen in fig. 51 is, it has been stated, meant to be used as an ornament at dances; it is made out of the leaf of a fan palm (Copernicia australis). It seems to me,

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

however, that this object, on account of its weight and shape, would be rather unsuitable for a head ornament. At an attempt at fixing this bunch in a band tied round my forehead, the cluster overbalanced at the very first sharp movement. With some Indians (e. g., the Pueblo Indians of New Mexico) it is the custom at certain dances to hold branches in the hands,[1] and the Mataco, on occasions, dance round two men who are each holding a bunch of sugar cane, resting it on the ground. In this

Fig. 46. Hair-net, with thin strap of red, woollen yarn. The technique in the knitting work resembles what is known as macramé lace. Hair-net as well as thin strap decorated with small shell spangles. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 10. 3. 15.

Fig. 47. Hair-net of red woollen yarn. Knitting technique resembling that of macramé. In the thin strap, which consists of grey woollen yarn, small downy feathers are worked in. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 5.

latter case the dance in performed in order to hasten the ripening of the sugar cane.[2] The fan-palm being of great importance in the food-getting of the Choroti, it is not inconceivable that the palm-leaf bunch here mentioned has been used at some magic dance, held with a view to obtaining an increased supply of palms. That palms are sacred trees, is a universal idea with the Indians,[3] a fact that enhances the possibility of this cluster having had some magical purpose. It may perhaps appear strange that I did not, without further ado, accept the statement of the

[1] Densmore (1), plates facing pp. 117 and 119.
[2] Karsten (1), p. 80.
[3] Karsten (4), p. 136.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

292 cluster being merely a head ornament, but the Chaco Indians often give
302 information that is purposely incorrect, and hence one cannot always rely
[24] upon their explanations.[1] A quaint head ornament, met with among the Choroti, consists of a cross, about 1 dm high, constructed of feathers, thread, and a wooden stick. These crosses, worn stuck into the frontlet, are very similar to a kind of ornaments, probably symbolic or magic, that are occasionally found together with ancient Peruvian mummies.[2]

[237]

Fig. 48. Ornament of white feathers, meant for fixing in a frontlet. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 26.

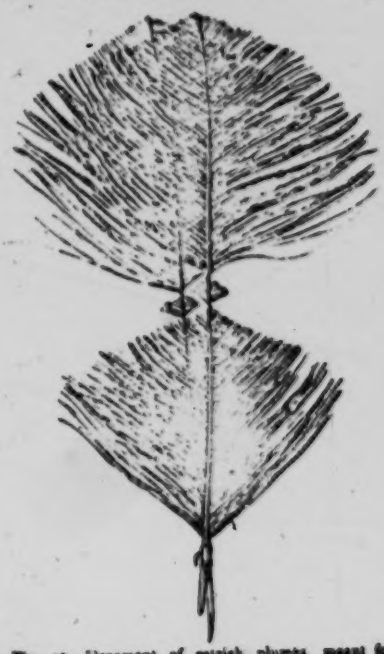

Fig. 49. Ornament of ostrich plumes, meant for fixing in a frontlet. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 20.

302 Occasionally the Choroti, and also other Chaco Indians, gather a lock
727 of their front hair into a tuft, tying it round with yarn or narrow woollen tape, so as to make it look like a brush, or broom. Sometimes they make a similar little brush from false hair, and wear it pushed in under the frontlet, over the forehead, so that it points downwards. The false-hair brush here depicted (fig. 52) possessed special value to the Choroti

[1] As to the lying disposition of the Indians of the Chaco, see for example Nordenskiöld (13), p. 34.
[2] Nordenskiöld (11), pp. 138—140.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

who was wearing it, for, according to his statement, this ornament originally belonged to an enemy killed by him (Cf. the »scalp lock» on the Indian in fig. 42).

On the Spaniards' first coming to the Inca kingdom, there was, naturally, in that country much that aroused their great astonishment. Among

Fig. 50. Bamboo casing for keeping ostrich feather head ornaments. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 10. 3. 18.

Fig. 51. Palm leaf object, said to be meant for wearing in a frontlet. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 99.

other things, the strangers found it especially remarkable that Peruvian men of noble birth were wearing immense, often metal-mounted wooden discs, or hanging ornaments, in their pierced ear-lobes, which were distended to a monstrous size. This custom occasioned the Spaniards to give the Peruvian nobles the nickname of »orejones» — which might be

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

translated »big ears» — an appellation subsequently transferred to all such tribes within, or in the neighbourhood of, the Inca kingdom, among whom the wearing of ear-lobe discs was customary.

In our days, the practice of wearing ear-lobe discs is met with among a number of tribes distributed over the whole of that part of South America which lies to the north of the tropic of Capricorn.[1] On the Chaco, ear-lobe discs are extensively worn by the Choroti, Lengua[2] and Ashluslay, and are also found among some of the Mataco and Toba Indians.[3] Also in North America the custom of wearing ear-lobe discs, or blocks, appears to be very ancient.[4] The wearing of this kind of ear discs is, however, not limited to America, but is also found, among other places, in Central Africa.[5]

Fig. 52. Brush-like ornament of false hair, for wearing pushed in under the frontlet. Choroti, Gran Chaco, Bolivia. $^{3}/_{4}$. Riksm. 03. 3. 65.

Among the Choroti, all the men and youths have their ear-lobes pierced, and in the holes they wear discs (see for instance figs. 17, 30, 39, 53). These discs were almost always used for everyday wear, and invariably on state occasions. It very seldom happened that I saw a Choroti man without his ear-discs. Latterly, the practice of wearing ear-lobe discs has, in the same way as other old customs once prevalent among the Choroti, become less common, and nowadays it seems that the Choroti, for everyday use at least, often appear without their discs. The piercing of the ear-lobes is performed with a bone awl, or cactus spine, already during boyhood, but I did not see any boys under puberty age wearing discs. Neither is there anything in the literature indicating that Choroti boys put on ear discs before that age.[6]

But, on the other hand, immediately on having had their ear-lobes pierced, the Choroti children take to wearing bits of grass, or very slender

[1] Nordenskiöld (11), map 18.
[2] Koch (1), p. 218, and Hawtrey (1), p. 283.
[3] Nordenskiöld (11), p. 122.
[4] See for instance Moore (2), p. 282.
[5] von Rosen (4), plate 7, fig. A, and von Rosen (7), p. 124.
[6] When it has been stated that the wearing of ear-lobe discs has nothing to do with pubescence [Nordenskiöld (13), p. 68], this is correct only in so far as the ear discs of the Choroti, like the tembeta of the Chiriguano, may, perhaps, first and foremost be attributed with a magical significance, and that their character of being symbols of puberty is only a secondary one. Cf. Karsten (4), p. 155.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

291 The women of the Choroti, especially the younger ones, have very
[77] generally adopted the woman's garment common among the Chiriguano, which is called »tipoy» and consists of a cloak-like covering hanging from the shoulders, where it is secured with cactus spines (fig. 62). The cloth forming the material of these tipoys, is an acquisition by the Choroti from the whites. I saw Choroti girls that had not troubled to sew their tipoys together, but thought it sufficient to pin the edges together with cactus spines down one side. Occasionally the girls wore the tipoy from the hips, as seen in fig. 61. The original garb of the Choroti women consists of a deer skin, or a length of home-woven woollen cloth wrapped round the hips (fig. 21), leaving bare the upper part of the body. Nowadays one only sees elderly women dressed in this way.

301 Contrasted with the men, the women have very few, and very unpretentious, ornaments. The girls wear a necklace or two, made from glass beads or porcelain buttons (fig. 61 and 62), and lizard-skin finger rings. Now and again one may see a woman with armlets, or finger rings, consisting of threaded glass beads, pieces of leather or palm leaf (fig. 62, the girl on the extreme right, and fig. 152).

302 The practice of decorating the face by tattooing and painting is common
304 to both sexes. The men, however, are not always tattooed, which, on the other hand, is the case with the women. Painting of the face, which may safely be assumed to possess magic significance,[1] is performed by men as well as women on all important occasions.

304 Whilst it is the prerogative of the men to adorn themselves with the showier ornaments, it is generally the women who display the more abundant tattooing (cf. figs. 63—66 and 71—76). The tattoo marks that a fully grown Choroti woman wears on her face, have not been worked on her all at the same time, but during different phases of her life as she grows up. According to Nordenskiöld, the Choroti begin tattooing their children already when the latter have reached an age of from 5 to 7 years,[2] and thenceforth various designs are added as the years pass. As a rule, the men are not tattooed, or they may have just a few tattoo marks (fig. 63), and it is exceptional to see Choroti men as profusely tattooed as the men in figs. 64—66.[3] As I have already pointed

[1] Se Chap. XII.

[2] Nordenskiöld (13), p. 68.

[3] Compare, with this for instance, Lehmann-Nitsche (1), pp. 80 and 81, and Nordenskiöld (13), pp. 69 and 70.

[text continues on p. 75]

Fig. 63. Fig. 64. Fig. 65. Fig. 66.

Figs. 63—66. Tattooing on men. From author's sketches.

Fig. 67. Fig. 68. Fig. 69. Fig. 70.

Figs. 67—70. Face-paintings on unmarried men. Figs. 67 and 68 in red; fig. 69 in black; fig. 70 in black and red (the lines at the root and ridge of the nose are black, the rest are red). Chorote, Gran Chaco, Bolivia. From author's sketches.

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Fig. 71.

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Fig. 72.

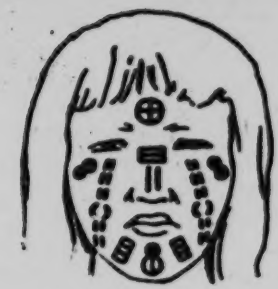

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Fig. 73.

Figs. 71—73. Tattooing on women. Chorotí. Gran Chaco. Bolivia. From author's sketches.

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Fig. 74.

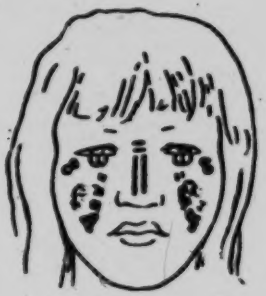

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Fig. 75.

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Fig. 76.

Figs. 74—76. Tattooing and painting on women; in the figures the tattoo marks are shown in black, the painting shaded. The painting was done with red paint. Chorotí. Gran Chaco. Bolivia. From sketches by the author.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

304 pattern with the cactus needles, or bone awl, until beads of blood appear, when the soot-mingled saliva is rubbed into the punctures. After healing, the tattoo marks assume a bluish colour.

302 At dances, lovers' meetings, and other important occasions, men and women paint their faces (figs. 62, 67—70 and 74—76). Face-painting may be done either in red (figs. 67—68 and 74—76) or in black (fig.

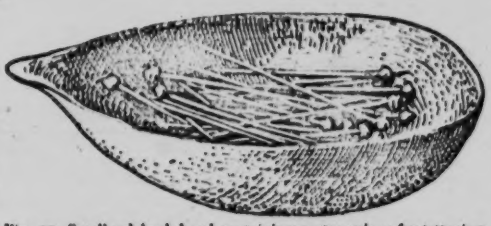

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Fig. 77. Small calabash bowl containing cactus spines for tattooing. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 87.

Fig. 78. Red paint, ready prepared for face-painting. This lump of paint, which is wrapped in a sheath of palm leaf, may possibly have reached the Choroti by barter from the Chiriguano. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 104.

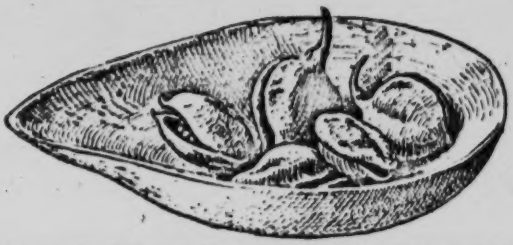

Fig. 79. Small calabash bowl containing fruits of Bixa orellana. From the seeds of these fruits colour is prepared for face-painting. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 103.

Fig. 80. Miniature bowl of wood, holding colour seeds. The bowl and the seeds have possibly been obtained by the Choroti through barter with the Chiriguano. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 180.

69), or in both red and black (fig. 70). Painting the face in red is commonest. The black paint consists of soot and saliva, whilst the red colour (fig. 78) is prepared from seeds of Bixa Orellana (fig. 79). These seeds are usually obtained by barter from the Chiriguano, and are carefully kept by the Choroti in small calabashes. I have also seen miniature wooden bowls (fig. 80) used as receptacles for these colouring seeds after they have been taken out of the follicle.[1] The soot is usually kept in a

[386 439]

[114]

[1] Owing to a mistake having occurred as to the identity of seeds, in my first treatise on the Choroti I have erroneously stated that the red paint used in face-painting is made from the seeds of Caesalpina melanocarpa.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

302 bamboo holder, 10 to 15 cm long, and 1 to 2 cm in diameter. The bottom of this cylinder consists of a joint in the bamboo, and for its mouth there is a stopper of wool, grass, bast or bees-wax.

[291] In painting the face, the paint is put on with small stamps, which either consist of the jaw-bone of a siluroid (figs. 81, 88 b) or of a piece of carved wood (fig. 82). Flat wooden stamps with diamond pattern are also used.[1] Those interesting stamps that are made from jaw-bones of fishes, are undoubtedly the prototype of the wooden stamps.

[531]

Fig. 81. Jaw-bone of a siluroid. The row of teeth is used as a stamp for putting on the paint in face-painting. The fore-end of the bone is sharpened to a point, so that this object can also be used in tattooing and blood-letting. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 100.

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[303 515]

Fig. 82. Paint stamp made of a cane splinter. Is used in the same way as the fish jaw in fig. 81 Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 94.

For cutting off the hair to the desired length (figs. 16—24, 30, 39, 53 and 83), the Choroti use the jaw of the palometa fish, which is set with exceedingly sharp teeth (fig. 84).[2] These are also used as louse-combs, although the Choroti as a rule carry on their louse-hunting only by the means that nature has provided them with. It is possible that once upon a time palometa jaws formed the only combs that the Choroti possessed, but that they afterwards went out of fashion when the more practical wooden or split-cane combs came into use. Of the latter, we may take it that the split-cane combs are the

Fig. 83. A man with hair hanging loose. Choroti. Gran Chaco Bolivia. Photo. E. v. R.

Fig. 84. Jaw of palometa fish (Serrosalmo sp.), used for hair-cutting. Also said to be a louse-comb. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 10. 3. 29.

[1] Nordenskiöld (11), fig. 42.
[2] Nordenskiöld (13), p. 100.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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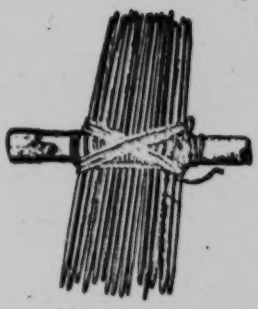

Fig. 85. Split-cane comb. Choroti. Gran Chaco. Bolivia. 3/4. Riksm. 03. 3. 74.

Fig. 86. Wooden comb, carved in one piece. Choroti. Gran Chaco. Bolivia. 3/4. Riksm. 03. 3. 70.

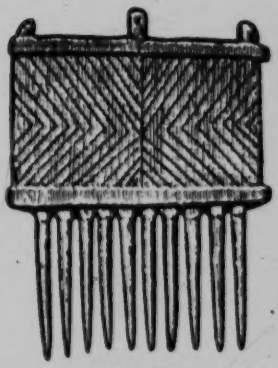

Fig. 87. Wooden comb, carved in one piece; the handle carved on both sides into angular ornament. Choroti. (This comb may possibly have been made among the Churiguano.) Gran Chaco. Bolivia. 3/4. Riksm. 10. 3. 28.

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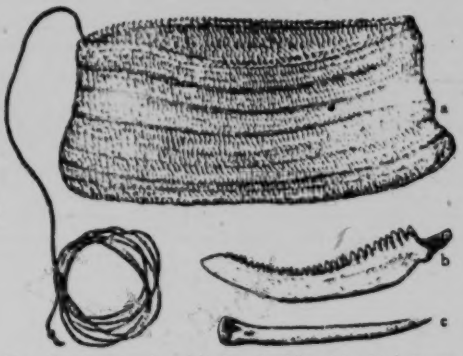

Fig. 88. Miniature bag (a) of undyed (greyish-white), brown, yellow, and black caraguatá fibre. When the author obtained the bag, it contained a stamp for face-painting (b) and a small bone awl for tattooing and blood-letting (c). Choroti. Gran Chaco. Bolivia. 3/4. Riksm. 03. 3. 101.

older cultural element. The split-cane comb in fig. 85 consists of a piece of cane, about 7.2 cm long, into which a split has been made from one end, so that only 2 cm of the other end of the cane are left intact. The insides of the two legs forming this crotch have been pared down so that the space between the legs of the crotch equals the thickness of the comb teeth at their middle, i. e., in this case about 4 mm. In the fork of this crotch the teeth, 1 to 2 mm thick, have been placed and secured by tying, with their flat sides together. This class of Choroti combs are generally of a construction differing somewhat from the one described, in that the cane has not been split from one of the ends in order to afford room for the teeth, but, instead, there is usually in the middle of it a recess, into which the teeth are fixed in the way I have described.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Apart from split-cane combs, the Choroti also have wooden combs, 302
carved in one piece (figs. 86 and 87). It is probable that formerly the Choroti did not themselves make as well-made combs as the one reproduced in fig. 87, as, until quite lately, the Chaco peoples have been without good cutting implements of stone or metal. Among the considerably higher cultured Chiriguano, who, for a certainty, have long possessed metal tools, carefully worked wooden combs are very common. It is therefore possible that the neat-looking comb shown in fig. 87 was made among the Chiriguano, although it may subsequently have reached [439]
the Choroti through barter. As I have previously pointed out, there are certain toilet articles, viz., colour seeds and ready-prepared red paint, of which the Chiriguano dispose to the Indians of the Chaco. The Choroti keep their toilet articles, not only in bowls and boxes of calabash, but also in miniature bags of caraguatá (fig. 88).

On account of the dearth of water that periodically recurs on the 515
Chaco, the mere nature of their country makes it impossible for many of the Choroti to observe the same bodily cleanliness as the Chiriguano. But even if the Choroti were well off as regards water supply, I do not believe that they would to any appreciably greater extent indulge in any bathing or washing *intended for the better care of the body*. For, it must be said, the Choroti do not possess anything like the Chiriguano's sense of cleanliness.

Nordenskiöld, who has had opportunities of studying the Choroti Indians on the Pilcomayo, where of course they had plenty of water, writes as regards their lack of cleanliness, inter alia, as follows: »Never did I see an Ashluslay washing his clothes, nor any Choroti, unless they had learnt it from the whites. And to bathe, just for the sake of bathing, is a thing these Indians would only do, I should think, when the weather is really hot. Fishing, however, of necessity takes the men a great deal into the water. The children often play about in the water, too, which makes for keeping them clean. And the 'wee-wee ones' get washed by their mothers when the latter go down to the river.»[1]

»Caring for the body», among the Choroti, is mainly limited to de- 515
corating the face by painting, combing the hair, picking out lice, and 302
pulling out all hairs on the face and about the private parts. Painting,

[1] Nordenskiöld (13), p. 78.

515 Painting,

302 [782] pulling out of hairs, and, in certain cases, the cutting of the hair, are, however, probably to a great extent to be looked upon as acts of magic import.[1]

515 A toilet business that cannot very well be said to be due to any supernatural conception, is, however, lice-picking. Practically all Choroti are infested with lice. When these are getting too troublesome, somebody is called in for assistance (see fig. 89). This is a service willingly rendered by the Choroti, for it is a kind of hunting that they visibly enjoy. To an onlooker it would seem as if the louse hunters also greatly valued [262] the quarry, for as soon as a louse has been caught, it is eaten by the hunter. But nevertheless I think it a mistaken idea that phthiriophagi find the lice nice-flavoured, for head lice are surely too small to have any particular taste, good or bad. Lice-eating probably has probably originated from a desire to render harmless, in the simplest way, such lice as have been caught. These little animals take a good deal of killing, if done with the fingers only, and there is not always a camp fire handy, into which to throw them; for less squeamish individuals, the eating of the catch undeniably proved the most practical way. I think it very probable that lice-eating also among monkeys has its explanation in a wholly conscious effort at annihilating noxious parasites.

[1] Karsten (4), Chap. 1, 3 and 6.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

This Indian practice of setting fire to their enemies' dwellings by shooting arrows has been mentioned as early as the 16th century. Thus Schmidel, for instance, relates how the Indians in the year 1535 set the very town of Buenos Ayres on fire, by their bow-shots, so that the town was burnt to the ground.[1]

For choice, the Indians always try to attack their enemies by surprise. When the Indians on the Pilcomayo (Toba, and probably also Choroti) wished to annihilate Crevaux's expedition, by their at first very peaceable and confidence-inspiring demeanour, they succeeded in so completely duping the members of the expedition that the latter did not take the trouble of always going about armed. Then the Indians concluded that the time was ripe for action, and at a preconcerted sign they fell upon the expedition, only one of whose unsuspecting members managed to escape. According to what an old Mataco chief told me, the explorer, Ibarreta, was also treacherously killed by the Indians. Ibarreta was said to have fallen ill whilst staying among Tapiete Indians in the Pilcomayo swamps in the interior of the Chaco, and to have been killed by those Indians in his sleep.

When the Indians of the Chaco are about to embark upon some warlike enterprise, they first get up a festival of drinking and dancing, at which large quantities of algaroba beer are consumed.[2] They paint their bodies black and red, and adorn themselves with plumes and other ornaments; this is, at least partly, done as a preparation for going to fight not only earthly enemies, but also supernatural powers.[3]

The Choroti take their fallen enemies' scalps, and subsequently, on special occasions, hang up the scalps in their villages;[4] they also highly prize the scalp-locks, resembling brooms or shaving-brushes (see figs. 42 and 52), that they obtain from slain foes.

The Chaco Indians sometimes torture their war prisoners. According to what the Bolivian soldiers at Fort Crevaux told me, the way they used to torture their prisoners was as follows. The prisoner was laid flat on his back on the ground, and his hands and feet tied to pegged-down stakes. Dry sticks were placed in a heap on the stomach of the victim,

[1] Schmidel von Straubing (1), p. 23.
[2] Nordenskiöld (13), p. 122.
[3] Karsten (2), p. 36.
[4] Nordenskiöld (13), p. 121 and 122.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

plaited, red woollen yarn; in the centre of the thick end of the rattle a circular hole has been made, 1.5 cm in diameter. It is through this hole that the above mentioned seeds have been poured into the calabash. The hole has then been stopped up with a plug of some black, waxy substance. The visible part of the plug is decorated with a mother-of-pearl button which originates from the whites. On the calabash there is carved ornamentation. 534

Rattles do not always contain only seeds, for in their interior one may also find other articles, such as bits of tinplate, glass beads and bits of glass (usually worn into a resemblance of pebbles), see fig. 182.[1] The incised ornament on these rattles is probably in every case of magical significance, even when, as on the rattle in fig. 170, it does not form any pictorial representation which is perceivable by the uninitiated. Pictorial representations are, however, fairly common on magic rattles of calabash (see fig. 181). In many rattles, the seeds, bits of metal, etc., have been introduced by way of a hole at the end of the handle, fig. 181, into which a plug of wood has then been inserted. This kind of rattle is as a rule without a hole at the base, or carrying string (see table on page 169).

Nordenskiöld[2] as well as Karsten[3] has given valuable accounts of the dances of the Choroti. At some of these the Indians wear a kind of dancing girdle, hung with animal hoofs or dried fruit shells which beat against each other at the dancer's movements, and in that way make a rattling noise. Karsten has tried to establish that all Choroti dances originally were of magical purport,[4] whilst Nordenskiöld is of opinion that the Choroti also possess purely profane dances, connected with the sexual life of these Indians.[5] Nordenskiöld describes this kind of dance in the following way: »In the larger villages, among the Choroti as well as the Ashluslay, there is dancing every night, nota bene, if the belly is not empty. For the young people these dances are everything; all their interest 535 [534] 535 302

[1] The bits of glass that one finds inside magic rattles are as a rule so much worn and stone-like that it requires a mineralogist to ascertain the fact that they are not products of nature (see fig. 182). The statement that one often finds the magic rattles of the Choroti containing stones (Vide von Rosen (3), p. 13), is erroneous, and due to the illusive resemblance that these worn bits of glass bear to quartz pebbles.

[2] Nordenskiöld (13) and (17).

[3] Karsten (1) and (4).

[4] Karsten (4), p. 26.

[5] Nordenskiöld (17), p. 145.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

535 centres on them. It is for them that they paint and deck themselves out.
302 At these balls the young Indian tries to appear as elegantly apparelled, as originally painted and decorated, as possible. Each day he paints himself after a different fashion, and arranges his ornaments differently. — These gentry, upon growing into older, staid, married men, no longer adorn themselves for ball parties, but only for war. — As to the Choroti girls, I have often seen them anointing their bodies with fish oil, which imparts to them an unpleasant smell. Their own opinion on this point is
[832] no doubt a very different one. To their thinking, we Europeans have an offensive cow smell. The level of elegance affected by the men is never
535 attained by the women. Still, they are, however, able to make the consoling reflection that it is, anyhow, in the first place for their sake that the lords of creation spend several hours of the day on their toilet.

»As has been said, it is in dancing that the whole interest of the young men and the young women centres. When the sun has set, then it begins. In a circle, or in a single rank, the men dance, marking the time by singing, may be: 'Táe-a-sa-lé, táe-a-sa-lé'. As the rhythm of the singing is slow or quick, so is the dancing. Music is a thing unknown at these
[533] dances. The chants that are sung are untranslateable refrains, which often are international, i. e., are used by many different tribes. The girls dance behind the men. Among the Choroti Indians it is the girl who takes the
[832] initiative in the matter of amatory ventures. She simply carries off with her, from the ball, any particular young man whom she may want as her lover for the night. These dances made a grand spectacle, as the moon, or a bonfire of pampas grass, shone on the gleaming bodies, I have seen as many as a hundred men form a dancing circle. At times the dance went quite slowly; at times it would go at a breakneck speed, raising clouds of dust, so that all one could see was a whirling melée of bodies and waving ostrich plumes.«

535 Of the dances of the Chaco Indians,[1] those that are obviously magical
789 are mainly performed as ceremonies of exorcism against dreaded spirits who have it in their power to cause illness or death; according to Karsten, magic dances are also resorted to in order to enhance the supply of wild, edible fruits.[2]

[1] Extract from Nordenskiöld (13), pp. 73, 75—77, and 79.
[2] Karsten (1).
[3] Karsten (1), pp. 25–28.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

776 character.[1] When there has been a death in a village, certain precautionary
[764] measures have to be taken in order that the spirit who caused the death may not in some way or other work further evil.

But also on all other possible occasions the spirits are capable of working harm, indeed, Karsten is of opinion that the Indians, even when doing such commonplace acts as eating and drinking, fear that malicious spirits may surreptiously effect an entrance into them along with the food or drink.[2] That the Indians have this belief is not so very remarkable. Similar conceptions are to be found among many peoples in different continents, and have also been widely spread in Europe. To mention one instance; in olden times on yawning or sneezing there was the custom of making the sign of the cross before the mouth, a custom founded on the fear that the devil or some of his kindred should slip in through the open mouth.

751 As a means of protecting themselves against evil spirits, or for securing, in a magical way, other advantages, the Choroti make use of a variety of devices, the most important of which are the covering of the body, painting of the face, dyeing textiles and other objects red, tattooing, wearing of amulets and certain ornaments, singing, blowing of whistles and shaking rattles, beating of drums, dancing, games of hazard, cutting or pulling out of hairs, and blood-letting.

The custom, previously mentioned, of the girls at their first menstruation keeping their heads covered with a cloth, is an instance of the first-mentioned magical means of protection.

302 At dances and lovers' meetings the Indians paint their faces (see page
751 78), but they adorn themselves by face-painting also on other occasions. As an instance, men as well as women usually had their faces painted when visiting us in our camp. At the time we took this to be a manifestation of Indian vanity, but after having read Karsten's detailed account of the reasons for painting the face among the Indians, I am more inclined to the belief that this painting had been applied as a protection against such unknown spirit forces as might possibly threaten them in the camp of the whites.

831 That painting of the face is done at dances and meetings of a sexual
302 character, is a circumstance connected with the Indian belief that occasions
751

[1] Karsten (1), p. 36, and (4), p. 17.
[2] Karsten (3), p. 205.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

of that kind are especially apt to make it easy for the spirits to acquire possession of human beings. When a woman paints her face, that fact may, therefore, indirectly constitute a sign that she desires sexual intercourse, although the painting may perhaps have been done for the magical reasons above indicated.[1]

On page 58 I have remarked that on a reed-casing for keeping ostrich plumes the holes and the edges of the lids were painted red. This red-painting cannot very well be of a decorative character, seeing that there is not much of the paint visible when the lid is closed. According to my opinion, it is very probable that the paint has been applied in order to protect the delicate ostrich plumes contained in the casing from sustaining harm from evil spirits. The fact is that there is, among the Indians, a wide-spread belief that decay and similar processes are caused by evil spirits, on account of which it has been customary among certain Indian tribes to paint not only corpses but also grave equipment with red paint for the purpose of preservation against decay. And we also possess positive evidence that among certain Indian tribes the custom prevails of providing the property of the living with a similar magically protective, painting.

When through Karsten's paper on Indian conceptions as to the significance of painting,[2] my attention had been drawn to these circumstances, I took to examining most of the objects I had found as grave furniture at Quebrada del Toro and Puna de Jujuy (Argentina) in order to ascertain whether any of these objects had been painted before being put with the dead.[3] This examination revealed that nine wooden objects seemed to be painted all over with red paint, but as I, owing to the objects having lain such a long time in the ground, was unable with certainty to decide whether these objects really were painted, or whether their red colour was due to the natural colour of the wood, I had the objects in question submitted to chemical examination. It was then established that the objects were painted, and that the paint consisted of ferrix oxide, almost pure,[4] (so therefore not uruku, which is prepared from Bixa Orellana).

[1] Cf. Karsten (4), Chap. I.

[2] Karsten (4), Chap. I.

[3] As a result of the fact that all the ethnographical and archæological collections of the Riksmuseum are stored in most unsuitable premises, it has not been possible to find all of the objects.

[4] Analytical report No. 211954, Chemico-Technical Bureau (Kemiska Tekniska Byrån).

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thers, not rarely with snail shell beads. The custom of wearing these *frontlets* undoubtedly derives from the mountain culture.[1]) (Map 21) In the Inca realm the frontlet was a token of honour.[2])

I have seen these frontlets among the (1) Choroti, (6) Mataco, (7) Toba, (3) Tapiete, (2) Ashluslay, (4) Chiriguano and (5) Chané, but among no Indians in N.E. Bolivia. The woven frontlet is, moreover, known from the (17) Abipone[3]) (26) Patagonians[4]) (10) Araucanians[5]) (8) Lengua[6]) (21) Cainguá[7]) and (6 V) Guaná[8]) Numerous frontlets have been found on the coast of Peru (A)[9]).

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Fig. 35. Hairnet. Ashluslay. G. M. (B. 94). 1/6.

The idea underlying the beautiful hair-nets decorated with snail shell beads (Fig. 35) which are sometimes seen among the Choroti and Ashluslay, probably also reached these Indians from the culture zone in the west, where they had hair-nets[10]) as well as the same

[1]) Cobo Vol. 4. p. 162; Uhle (2) p. 30.

[2]) Pelleschi compares the frontlets of the Chaco Indians with those that were used by the Incas. His explanation, however, of the occurrence of this cultural element in the Chaco, is not that the Indians in the Chaco learnt the use of the woven frontlet from the Incas, but runs as follows: »Now this custom must have pre-existed among some at least of the primitive peoples of the Empire, since we find it here in the Chaco, and we attribute to the Incas merely the law as to its use; their system being to regulate every person and everything by laws.« p. 24.

[3]) Dobrizhoffer, Vol. 2. p. 130.

[4]) Outes (3). p. 254; Falkner, p. 111.

[5]) Medina p. 168.

[6]) Grubb, p. 70.

[7]) Outes and Bruch (5) p. 94, fig. 77.

[8]) Cominges, 306.

[9]) Reiss and Stübel, Vol. 3. Pl. 73.

[10]) G. M. (10. 9. 78); Reiss and Stübel, Vol. 3. Pl. 30 fig. 2, 9 and. 10.

[text continues on p. 130]

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technique in knitting as is seen in the hairnets in the Chaco[1]) on the Peruvian coast. The Lengua Indians have very similar hair-nets to those of the Choroti and Ashluslay[2]).

RADIN[3]) mentions hair-nets like caps from the Suyá, Yurúna and Karajá. They are also found among the Mataco[4]).

The use of *tassels* (Fig. 36) on cords of various kinds is clearly a custom that came to the Chaco from the culture zone in the west. Within the area of my investigations I

Fig. 36. Hair-band with tassels. Ashluslay. R. M. (A. 5). 1/3.

Fig. 37. Hair-band with tassels. Quichua mestizos. Callegua. N. Argentina. R. M. (n. 12). 1/3.

found these tassels among the Choroti, Ashluslay, Mataco, Toba, Chiriguano, Chané, Aymara and Quichua (Fig. 37) but among no tribe on the plain north of Sta. Cruz de la Sierra. Tassels are common on the textile fabrics found on the Peruvian coast[5]).

[1]) G. M (P. 1.)
[2]) HAWTHEN, p. 282.
[3]) p. 929.
[4]) R. M. (04.4.112), R. M. (04.4.113).
[5]) See, e. g. REISS and STÜBEL, Vol. 3. Pl. 75, fig. 1, 3, 9.

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The tassels of the Ashluslay, here depicted, are similar to those used on their head-bands by the Quichua mestizos in the Calilegua Mountains of N. Argentina (Fig. 37).

The Choroti sometimes wear an ornament on the forehead[1]) in the form of a *thread-cross* (Fig. 38, Map 22).

The distribution of the thread-cross throughout the world has been studied by Foy. From S. America he gives: (55) Arawaks (Guayana), (13) Karajá (15) Kayapó, (14) Bororó, (75) Angaité, (1) Choroti, (6), Mataco-Vejos, (A) Peruvian coast and (T) Antióquia in Columbia.

It is notable that the thread-cross commonly occurs on the Peruvian coast together with the so-called mummy packets. It probably had a religious significance there.

I will return later on to the question of the origin in the Chaco of the thread-cross.

Fig. 38. Thread-cross, frontlet. Choroti, G. M. (D. 143). 1/4.

The young men of the Choroti and Ashluslay use *plumes*, of course. Feathers are sometimes sewn to the frontlet. Ostrich feathers, with cuttings in them, are often sewn into the frontlet. SÁNCHEZ LABRADOR[2]) speaks of them among the Mbayá. Round the instep and the upper arm the young men often wear plumes.

Plumes round the feet are very characteristic of the Indians in the Gran Chaco. Among others, HAWTREY[3]) mentions them from the Lengua, and DUCCI[4]) from the Toba.

The Ashluslay and the Choroti often wear a »brush» of hair or feathers stuck

[1]) The thread-cross was possibly not only an adornment among the Choroti, but also an amulet. However, as I heard nothing from the Indians to that effect, and as they have no compunction in selling thread-crosses, I look upon the thread-cross for the present as an ornament.

[2]) Vol. 1. p. 214.

[3]) p. 283.

[4]) p. 10.

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in the frontlet. Similar adornments are customary among the Lengua[1]). I have not seen this species of adornment outside the Chaco.

The plumes seen in the Chaco differ considerably from those seen among the Indian tribes in N.E. Bolivia. Here we almost entirely miss the use of parrots feathers, and yet there are very gay-coloured little parrots in the Chaco. Ostrich feathers are chiefly used. As basket-weaving is unknown, the feathers are never mounted, as so often in Brazil, on woven basket-frames. But, on the other hand, it is customary, as we have observed, to fasten the feathers onto some material, a custom I never observed among the Indians of N.E. Bolivia.

The custom of fastening feathers onto material, appears to me to have originated in the mountain culture.

A common material for making ornaments in the Chaco, is hide and leather. In my collections from the Choroti and the Ashluslay, there are foot-ligaments, wristlets and armlets of leather, and caps and frontlets of hide, particularly jaguar skin. The leather armlets, as also often other adornments, such as the ear-blocks, are covered with pieces of tinplate.

Sánchez Labrador[2]) is of the opinion that this custom derives from Peru. The assertion is of interest, as this is the first time, as far as I know, that anyone has adduced ethnographical proofs of Inca influence in the Chaco.

Few adornments are worn by the women in the Chaco. The Ashluslay women have armlets of strips of deer-skin. Ducci[3]) speaks of these from the Toba, and, according to him, they are worn as amulets against lightning. I have not seen them elsewhere. The women occasionally wear necklaces of seed-grains.

Both men and women wear *rings*, which consist of seg-

[1]) Hawtrey, p. 282.
[2]) Vol. 2. p. 280.
[3]) p. 10.

2: Nordenskiöld E-5 (1908-1909)1919
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Ashluslay SK5

XX.

Toilet articles.

A C 302

The Indians here dealt with are acquainted with the use of comb and brush. The use of the comb in S. America is very widespread; that of the hairbrush is much less so.

A C [237]

Fig. 39. Hairbrush. Ashluslay, G. M. (A 701) 1/2.

I have in my collection *hairbrushes* (Fig. 39. Map 23) from the (6) Mataco, (1) Choroti, (2) Ashluslay and (3) Tapiete. They are, moreover, known among the (10) Araucanians[1]), (26) Patagonians[2]), (66) Peguenche[3]) and (X 5) Yahgan[4]).

LEHMANN-NITSCHE[5]) gives a drawing of an object from an excavation in the (D) Puna de Jujuy which probably depicts a hairbrush. The hairbrushes of the Choroti, Ashluslay and Mataco are made of ant-bear hair. The Tapiete Indians use brushes made sometimes of hair, sometimes of roots. Otherwise they are made of twigs or roots.

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[1]) UHLE (6). p. 13.

[2]) OUTES and BRUCH (5). p. 122, fig. 118.

[3]) LUIS DE LA CRUZ, p. 35: «Y advierto que sus peines es un manojo de boquis ó raicesillas delgadas de que nosotros usamos para barrer las casas.»

[4]) OUTES and BRUCH (5). p. 138, fig. 140.

[5]) (1), Pl. 4, F. 6.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK 5

It is an interesting fact that UHLE[1]) has found these hair-brushes in the very old excavations at (B) Arica. He has also discovered them in the oldest excavations at (h) Pisagua, while in the younger strata there, which he assigns to the time of the Tiahuanaco, he found combs. The hair-brush is evidently a very old mark of civilization in S. America, now spread more especially in the south.

LUIS DE LA CRUZ[2]) says that the Peguenche have no knowledge of combs. Nor have the Tehuelche any combs. On the other hand, among the above-mentioned tribes of the Chaco, the comb is used along with the hair-brush. The rest of the Indian tribes visited by me, with the exception of the Cháma, the Tambopata-Guarayo and the Huari, all had combs. PATER SCHMIDT[3]) has endeavoured to determine the area over which various types of comb are spread. He only concerns himself with what he calls «stick-combs», i. e., combs made of a number of sticks bound together. In the Chaco there is yet another kind of comb, consisting of a flat piece of wood out of which the teeth of the comb are carved. Various forms of these «stick-combs» are found spread over the larger part of S. America. I take the liberty of making this reference to PATER SCHMIDT's classification, though I do not understand his division into various types. I will only point out here that the «stick-combs» used by the Choroti and the Ashluslay in their shape and manner of splicing, (Fig. 41) are, as a rule, identical with those found by LEHMANN-NITSCHE[4]) in the Puna de

[1]) «*El peine* por ejemplo, tiene la forma de escoba que es la primitiva americana, y que ahora está sólo en uso entre los Patagones, Araucanos y en una parte de Méjico, según sabemos. Con la misma forma aparece en las sepulturas más antiguas de Pisagua. En el período de Tiahuanáco, aparecen primero los peines con dientes, tanto en Pisagua como en todo el Perú, teniendo los peines conocidos de las tribus transandinas del Este y Norte la misma forma.» UHLE (6) p. 13.

[2]) p. 35.

[3]) p. 1084.

[4]) (1). Pl. 4, fig. F. 7 and fig. G. 3.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

A
C
302

Jujuy, by BOMAN[1]) in Calama in Atacama, and by myself[2]) in the Ollachea a valley in Peru. On account of the great similarity between the combs found at the archaeological excavations within the civilized area of the west and the combs of the Choroti and the Ashluslay, it seems clear to me that this type of comb in the Chaco is derived from western civilization. Whence the Indians of the Chaco originally received the comb is, however, unknown to me. From PATER SCHMIDT's classification we see that the

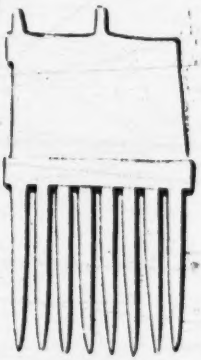

Fig. 40 A.
Wooden comb. Choroti.
G. M. (D. 24) $^1/_2$

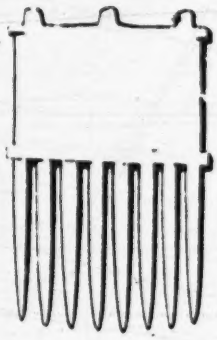

Fig. 40 B.
Wooden comb. Chiriguano. R. M. (E. 451) $^1/_2$

comb is lacking among most of the Gés-tribes. It occurs within the old area of civilization on the Andes and everywhere among the Caribs, Guarani and Arawak tribes.

The wooden comb which, in contradistinction to the stick-comb, we may call the plain comb, has a rather limited area of occurrence. I have such combs in my collection from the Choroti, (Fig. 40 A) Chiriguano (Fig. 40 B), Chané, Mataco and Tapiete. DEBENEDETTI depicts such a comb[3]) found in an excavation at Humahuaca in the

[1]) Fig. 171 f.
[2]) (3) Pl. 3. fig. 4 and 9.
[3]) (2). fig. 180.

2: Nordenskiöld E-5 (1908-1909) 1919
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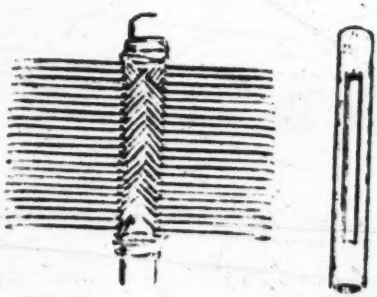
A C 302

northernmost part of Argentina and another from Kipón[1]). Uhle shows a wooden comb of the European type from Cajamarca in Peru[2]). Among the Ashluslay I have not seen this type of comb. The combs found among the Choroti are exactly like those of the Chiriguano, wherefore it is probable that they received this type of comb in the first instance from those Indians. In origin it is probably derived from western civilization.



a b

Fig. 41 a. Stick-comb. Ashluslay. R. M. (A. 6012) 1/2. b. Back.

The stamps (Fig. 42) which the Indians employ in painting themselves also belong to the toilet articles of the Chaco country. These are sticks or flat pieces of wood with notched or lined carvings.

The ornamentation of these stamps is smeared with paint, whereupon the stamp is pressed against the skin. My collections contain stamps of this kind from the (1) Choroti and (2) Ashluslay for painting the face, and from the (22) Yuracáre for painting the face and clothes. Outside the Chaco stamps appear to be most spread in the north-west of S. America. In some districts they are made of burnt clay. We find them among the Indians of N. W. Brazil (48)[3]), among the (12)

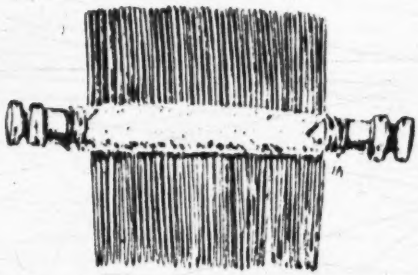


Fig. 41 b Stick comb. Ashluslay. R. M. (A. 6010) 1/2.

[1]) (1), fig. 10.
[2]) (1), Vol. 2, Pl. 17, fig. 8.
[3]) Koch-Grünberg, Vol. 1, p. 176 and p. 240.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

Fig. 42. Stamps used for the painting of the face. Ashluslay, R. M. (A. 1074, 1078) 1/2.

Mbayá [1]), (34), Jivaro [2]), (74) the Indians of the Orinoco [3]), (X 3) Piaroa [4]), (54) Guahibo [5]) (13) Karajá [6]), (15), Kayapó [7]), (8) Lengua [8]), (V5) Yekuaná [9]), (46) Conibo [10]) (71) Sipibo [10]), and (2 D) Setebo [10]).

During archaelogical excavations in Columbia they have been found at Ubaté, Cundinamarca, Fresno, Tolima, (W) Guasca, Cundinamarca, (T) Manizales, Antióquia, Pereira near Cartago Viejo and Cauca [11]). All these are of burnt clay.

SAVILLE [12]) found numerous stamps of burnt clay at (I) Manabi on the coast of Ecuador. They are also known from the island af Trinidad [13]).

From the vicinity of the old area of civilization in the west adjacent to the Chaco country, I know none of these stamps. At present I must leave the question open whence the Indians of the Chaco have received these elements of civilization.

[1]) SANCHEZ LABRADOR, Vol. 1, p. 285. «El modo con que forman dichas figuras tiene algo de ingenio. De piel hacen los moldes sacándole los cortes y rayos que ha de llenar el color blanco, materia de la estrella. Cuando quieren parecer estrellados, arriman los moldes al cuerpo, ya pintado de encarnado ó negro»; COLINI (1), p. 309.

[2]) RIVET (1), p. 28.

[3]) GILIJ, Bd. 2, p. 58.

[4]) MARCANO, Pl. 30.

[5]) R. M. (H. M. K. II. 12)

[6]) KRAUSE, p. 218.

[7]) » p. 380.

[8]) M. f. V. B. (V. C. 520).

[9]) M. f. V. B. (V. A. 6101).

[10]) COLINI (2), p. 533.

[11]) UHLE (1), Vol. 1, Pl. 3, Fig. 14-25. See also FABREGA p. 318.

[12]) Vol. I, p. 76; Vol. 2, p. 198.

[13]) FEWKES p. (not marked on the map.)

Choroti SK6
Mataco SI7
Güisnais

Ci 301 302 171 /321 cont./

Doubtless through being very close to the Toba, they pierce their ear lobes, in which they put pieces of wood, and they also stain their faces.

Ci 648 [464] In the expeditions to the Paraguay they have never shown themselves to be hostile to the whites and soldiers; rather they have lent important services and it was they who saved the life of Señor Touvar and his companions when they became separated from the expedition. Therefore the reduction of these Indians to civilized life would be very profitable.

Güisnáis

M 131 101 These Indians occupy the western bank of the Pilcomayo facing the Choroti Indians and southwest of the region occupied by the Mataco. The geographic degree of their territory, with a very slight difference, is the same as that of the Choroti, since they are separated from the latter only by the river bed.

M 101 181 241 231 197 They are a division of the Mataco; they speak the latter's language with very little difference; their customs are nearly identical and their number quite small. They are of a peaceful nature like the Choroti, and like them, they plant gourds and other vegetables. They also devote themselves to the raising of domestic animals, such as cows, horses, sheep, goats, and chickens.

M 167 177 464 224 Even the Güisnáis frequently come out for jobs in the Argentine Republic, from where they also bring back weapons, in order to use them particularly in the woods, killing birds, wild boars, deer, and other quadrupeds.

M 174 771 776 [756] They have more religious ideas than other tribes, and it seems that their great-grandparents might have belonged to some former Argentine mission, because, more than others, they recognize a true divinity. /322/ Nonetheless in their great ignorance they confuse ideas, and in great fear they recognize in sorcerers a power that they do not have.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
Choroti SK 6

In subtropical land like the Chaco, where the weather is often very hot especially during the »summer-time», dress is naturally of the most simple kind. Both among the Mataco, the Choroti, and the Tobas, the most important article of the man's clothing is a small cotton waist-cloth which serves as a covering and protection for the genitals. In addition to this waist-cloth the Mataco and the Choroti formerly wore a kind of broad fringed leather-belt round the loins, whereas the Tobas covered the genitals with a small apron of skin or stuff. The rest of the body is among all the tribes generally kept entirely naked or is only covered by the usual necklaces and other ornaments, or by red *urucú*-painting. When the weather is cold, and on festival occasions, the men also wear big woollen blankets with interwoven linear patterns mostly in red colour. The blankets of the Lenguas and other tribes in eastern Chaco often show designs denoting venomous snakes etc., but such patterns are unknown to the Choroti, and where they are found they have originally been obtained from the interior of the country. Weaving is among all Chaco tribes exclusively a work incumbent on the women.

The Choroti man adjusts his blanket in different ways. In cold or wet weather it is wrapped round the body so as to cover one or both shoulders; when it is hot, he allows it to fall in a double fold from his waist, where it is either fastened by a belt or by tucking the folds of one corner into the other.

The usual clothing of the women is a short cotton petticoat reaching from the waist to a little below the knees, the upper part of the body remaining unclothed. This petticoat formerly consisted of deer or nutria skins sewn together, but since the present-day Choroti are poor hunters such skin loin-clothes are now rarely seen. According to Mr. Hunt, young Choroti girls have nowadays adopted the female dress of the Chiriguano (Avas), a kind of sleeveless, waistless gown caught at the shoulders with a couple of safety pins and known under the name of *tipoy*. At the time when I travelled in the Chaco these *tipoys* were only known to the women among the Bolivian Tobas, but not to the Choroti women, who always kept the upper part of their body uncovered and, in opposition to the Toba women, never showed any shame at displaying their bare breasts. A few necklaces, beads, or twisted feathers replace clothing on these nude parts of the body. Many of the personal ornaments of both men and women have the character of amulets or charms and will therefore be dealt with later on in connection with the religion of the natives.

Much the same may be said of the dress of the Mataco and the Tobas. Both of these tribes, and especially the Mataco, have been influenced

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

their rattle gourds, whilst the men provided with drums beat them. The girl in whose honour the dance was held was standing motionless and silent at the entrance of the hut reclining against the wall and had to remain so during the whole ceremony. Sometimes, when towards evening she got tired and was on the point of falling asleep, one of the medicine-men came up to her and shook his rattle close to her face as if to keep her awake. The ceremony began in the afternoon and was continued with short pauses throughout the whole evening until midnight. I was informed that as long as the dance goes on the girl need not be veiled, but as soon as the conjuration is finished for the night she must have her face and her whole body well covered. During the whole period that the dance is performed she is moreover obliged to fast, avoiding fish and meat and living only on some light vegetable food.

I may add that all the men who took part in the ceremony were painted on the face in one way or another. Some of them simply had the face coated red with roucou or black with charcoal, whereas others had X-shaped or other patterns painted on the cheeks. The men's faces are always painted in this way at the conjurations of the Indians, and these paintings have a purely magical significance.

The drinking of algaroba beer also forms part of the magical practices at the feast, but it is strictly limited to the men.

The object of all these ceremonies is to protect the girl against the evil spirits, the *möhsek*, by which she is believed to be particularly attacked during her unclean condition. The spirits try to enter into her through the face — especially through those parts where there is a natural opening of the body, such as the eyes, the ears, the nose, and the mouth — and also through the ventral parts, the consequence being, if they succeed in doing so, that she will fall ill and die, or become supernaturally pregnant and give birth to a monster. It is in this way that the Indians account for the birth of those deformed children which they kill directly after birth. To prevent such frightful accidents the girl's head and body are covered after the conjuration is finished for the night. By means of the dancing, chanting, drumming, etc. the evil demons who take an interest in the girl and swarm about her are conjured and rendered harmless. According to the idea of the Indians she is not only protected for the time being against their attacks, but she will also retain a certain power of resistance against them in the future.

The puberty of a girl is not celebrated in all cases among the Choroti with so many ceremonies as in the case just described, but the

2: Karsten E-5 (1911-1913)1932 SI7 Matacc
Toba S/12
Choroti SK6

odd appearance which the charcoal gives the face acts as a deterrent; but probably some mysterious magical properties are also ascribed to the soot or charcoal itself. Black is held to be a more powerful means of inspiring evil demons with fear than other colours: hence it has especially become the »colour of sorrow»: for the spirits of the recently departed, or the demons who cause disease and death, are, after all, the most dreaded of all supernatural beings.

Even ornamental painting may be applied after a death. Thus an old woman had painted a small arrow in brown colour on each cheek in the evening of the day a brother of hers had died. The true significance of this face-painting may be inferred from the fact that in the same evening all the inhabitants of the village carried arrows or sticks in their hands when they moved about outside their huts, and that the nearest relatives of the dead, who had abandoned the house of death, had made themselves a whole fence of arrows stuck in the ground, inside which they spent the night. The object of these precautions was professedly to keep off the death-demon, and the same was certainly the object of the ornamental arrows painted on the woman's cheeks. The Indians in fact believe that they can intimidate their supernatural foes in the same way as their natural enemies.

Lastly, the Tobas, like other South American Indians, are in the habit of painting the body before they march out to battle. This kind of body-painting has already been described in connection with Indian warfare.

The facial paintings of the *Choroti* show a greater variety of design than those of the Tobas. These ornamental designs are applied for feasts and dances, and since the latter in many cases have apparently a profane character, it may seem to a superficial observer as if the body-painting of the Choroti had for its object only to embellish the appearance. Such a conclusion however would be a mistake, since the Choroti dances, as we have seen, are in really in their nature a sort of magical conjuration. Similarly, the feasts held in the honour of young girls at puberty have a purely religious significance. At a feast of this kind where I was present most of the men who took part in the ceremonies had painted on their faces ornamental designs in red and black colours. Many of them had painted on each cheek an X-shaped design which is frequently met with in the ornamental art of the South American Indians and which is evidently nothing but an impressionistic drawing of the human body, representing for instance the breast and the stomach, of

2: Karsten E-5 (1911-1913) 1932 SI7 Mataco SI7

Choroti SK6

C
302 the body of some animal. The magical nature of these ornaments was
881 likewise obvious.

M
302 Among the *Mataco*, who in general are more addicted to religion and superstition than the Choroti, the character of facial painting as a magical charm is more conspicuous. These Indians give facial painting
789 different names according as it is used by men or women and depending on its colour. Thus the red painting of women is called *eruháh*, whereas
M the red painting of the men is called *oväittáh* (a name evidently derived
765 from the word *aittáh* demon). The black painting is called *letáh*. It is especially used as a sign of sorrow. When a Mataco man dies, his widow and daughters blacken their faces with charcoal, regarding this as a protection against the death-demon. Similarly, for some time after a death the younger men every evening perform the dance *Katináh*, and
M all those taking part in the dance have their faces blackened. — The
751 red painting again is applied as a means of giving the body strength and as a direct protection against evil spirits causing sickness.

M
301 Many *personal ornaments* of the Chaco Indians, for instance ear-tubes, necklaces, feather ornaments etc., are of the nature of charms or amulets against evil spirits. The feather ornaments most customary
789 among the Chaco tribes are ostrich plumes, and these, as I have shown in my *Civilization of the South American Indians* have originally not been decorations in the civilized sense of the word, but magical charms, a character which they still preserve for instance among such tribes as the Chamacoco and Lenguas in Paraguay. Among the Choroti, who likewise at their great feasts in December and January wear great ostrich plumes as ornaments, this is not equally conspicuous in accordance with the fact that in many cases the Choroti culture shows traces of an incipient degeneration. On the other hand, in the description I have
M given before of a Mataco dance performed to conjure disease demons
756 and in which the sorcerers had ostrich feathers fastened to the ankles, wrists, head, and waist,[1]) the »mystic» significance of these »ornaments» is quite obvious. Similarly, when another writer states that the Mataco in some parts of the Argentine Chaco not only use ostrich plumes as head-ornaments, but also apply them to the face as a sort of beard, which gives them a grotesque and ferocious appearance, or wear them round the wrists in the way of bracelets,[2]) one cannot fail to recognize superstitious motives behind these arrangements.

[1]) See *supra*, p. 137.

[2]) Baldrich, *Las comarcas vírgenes*, p. 231.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

The *ear-tubes* which are worn as ornaments for instance by the Choroti. Ashluslay and Toba-Pilagá and which consist of wooden plugs or pieces of cane, sometimes of tremendous size, are likewise nothing but magical charms or amulets. This was clearly indicated by the Choroti, who told me that the ear-discs are worn to prevent the evil spirits, the *möhsek*, from penetrating into the ears. Their hugeness and peculiarity is evidently thought to act as a deterrent upon the spirits, and there seems to be the idea that the larger they are the more efficacious.

The Indians of the Pilcomayo use various kinds of *necklaces*, and it seems to be the rule that among the most primitive tribes, such as the Choroti and Ashluslay, they are more worn by men than by women, among the more civilized Tobas again more by women than by men. Speaking of the dress of the Choroti, I mentioned the large and costly kind of necklace consisting of snail's shells elaborately fashioned into small round buttons with a hole drilled in the centre and closely strung together. The necklace, called *lähslehuésle* in the Choroti language, is not only an ornament but at the same time a magical charm. The Choroti no doubt gave me the true explanation of their original significance when they told me that the necklace is a protection against sickness. The evil spirits, according to the idea of these Indians, preferably attach themselves to the throat or the chest, because catarrhs are very common in the Chaco during the dry season. The spirits are believed to enter into the body through the throat or the breast, but this is prevented by the protecting necklace. Hence, when a Choroti Indian sells his necklace or leaves off wearing it, his comrades say that he will most certainly soon fall ill. The same idea I found prevailing among the Mataco-Noctenes of Bolivia, where such ornaments are worn by both sexes. Thus the son of a chief, who was just at the age of puberty, one day appeared painted red in the face with *urucú*, and with a large necklace which covered the neck and the breast. When I asked the father why his son had put on these things, he answered: »It is in order that he may not fall ill». Both among the Mataco and the Choroti it is customary that children of both sexes go totally naked up to the age of eight to ten years, but nearly always they wear collars and facial paintings which most certainly are not »ornaments» in the civilized sense of the word.

Among the South American Indians in general it is a common custom to tie round a limb, for instance the wrist or the leg, a leather strap or some other kind of band, professedly with a view to making the arm or the leg strong. The Chaco Indians also commonly wear such ligatures

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI12
Choroti SK6

C 765 forming a falling scale in a minor key, which makes a very peculiar impression. At the time of mourning the women and children commence this wailing at fairly regular intervals and all at once, as if it were agreed upon. To one who lives for some time in a Choroti village it is evident C 765 that wailing forms part of Indian etiquette. Not only must the mourners, when they arrive from another village, which has been abandoned on 576 account of a death, be received by a choir of weeping women and children; any guest who arrives in a village shortly after a death has taken place there is received in the same way. When in March 1912 I visited the Choroti in the interior of their land, where no European had yet penetrated, I noticed with astonishment that on my arrival at a village I was received with loud wailing by the women and children. I soon learnt that a great chief had died some time ago; but the fact that the wailing was renewed to receive me remained unexplained. I was told, however, that this peculiar way of receiving strangers was prescribed by Choroti custom. The most probable explanation seems to me that it is feared lest the spirit of the defunct should revisit his people in a strange disguise, and that the wailing has for its object to propitiate him or to frighten him away. Such ideas prevail among other South American tribes also, both in the Chaco and elsewhere.

M ●C T 765 ● 302 562 There are certain other customs observed in connection with mourning, but they are as a rule limited to the women. Among all Pilcomayo tribes it is customary that when a man dies, his widow, daughters, and sisters cut their hair short with the sharp teeth of the *palometa* fish and burn it. Ceremonial wailing always attends the cutting of the hair. When I asked the Choroti why a widow cuts and destroys her hair after the death of her husband, I was told that the dead husband, who wants his wife to follow him to the grave, is believed to attack her through the hair. In order to rid herself of this danger she shaves it off. Exactly T 765 the same belief prevails among the Tobas: the dead husband or father will seize his surviving wife or daughter by the hair and cause her to fall ill and die. Among the Tobas a widow cuts her hair twice, first immediately after the husband's death, the second time some months later T [602] when the hair has again grown long. At the same time she repeats the wailing. Similarly the nearest female relatives have to diet, in so far as they are not allowed to eat fish for many months. If they infringe the rules of diet in regard to fish they may sicken and die. After a Toba woman has cut her hair the second time she may again eat fish, her mourning is over and she is allowed to marry again. Even some of the

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

302 bamboo holder, 10 to 15 cm long, and 1 to 2 cm in diameter. The bottom of this cylinder consists of a joint in the bamboo, and for its mouth there is a stopper of wool, grass, bast or bees-wax.

[291] In painting the face, the paint is put on with small stamps, which either consist of the jaw-bone of a siluroid (figs. 81, 88 b) or of a piece of carved wood (fig. 82).

[531] Flat wooden stamps with diamond pattern are also used.[1] Those interesting stamps that are made from jaw-bones of fishes, are undoubtedly the prototype of the wooden stamps.

Fig. 81. Jaw-bone of a siluroid. The row of teeth is used as a stamp for putting on the paint in face-painting. The fore-end of the bone is sharpened to a point, so that this object can also be used in tattooing and blood-letting. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 100.

Fig. 82. Paint stamp made of a cane splinter. Is used in the same way as the fish jaw in fig. 81. Choroti. Gran Chaco. Bolivia. 2/1. Riksm. 03. 3. 94.

For cutting off the hair to the desired length (figs. 16—24, 30, 39, 53 and 83), the Choroti use the jaw of the palometa fish, which is set with exceedingly sharp teeth (fig. 84).[2] These are also used as louse-combs, although the Choroti as a rule carry on their louse-hunting only by the means that nature has provided them with. It is possible that once upon a time palometa jaws formed the only combs that the Choroti possessed, but that they afterwards went out of fashion when the more practical wooden or split-cane combs came into use. Of the latter, we may take it that the split-cane combs are the

Fig. 83. A man with hair hanging loose. Choroti. Gran Chaco Bolivia. Photo. E. v. R.

Fig. 84. Jaw of palometa fish (Serrosalmo sp.), used for hair-cutting. Also said to be a louse-comb. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 10. 3. 29.

[304] [303 515]

[1] Nordenskiöld (11), fig. 42.
[2] Nordenskiöld (13), p. 100.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

142 Of the Choroti among whom I carried out my investigations, the men

appeared to be fairly tall of stature,[1] figs. 16—19, 30, whilst the height of the women was remarkably small, figs. 19—22, 30. I took height measurements of ten men and thirteen women, but as the table got lost during the expedition, I am not able to give the maximum and minimum measurements. But I have the computed average heights preserved in my diary, and they are 170 cm for the men, and 152 cm for the women. The height measurements at a later date made of Choroti (who had come to look for work at sugar plantations in Argentina) by Lehmann-Nitsche show an average height of 161.6 for men (aver. of 20 individuals), and for women 155.3 (10 individuals). That Lehmann-Nitsche and I arrived at such appreciably divergent results is because our measurements were taken of so small a number of people. Lehmann-Nitsche having, however, measured twice as many males as I, it may be presumed that the average height obtained by him more nearly approaches the true average for the men of the tribe than does the result obtained through my measurements.

Fig. 15. Spectacle-cayman (Caiman sclerops). Camp at Tatarenda. Gran Chaco. Bolivia. Photo. E. v. R.

[304] The shape of the skull is predominantly dolichocephalic, and shows no traces of artificial deformation.[2] The men, as well as the women, are, as a rule, strongly and proportionately built, although in some individuals the breast is flat and the belly rather big (figs. 17, 37), the latter no doubt resulting from the fact that the Choroti largely subsist on roots and fruits, a kind of diet usually producing distension of the stomach. As an example, in the rural districts of Europe it is no rare thing to come across persons, especially children, who, from a too-protracted diet of potatoes, have developed a distended stomach, a so-called »potato belly».

[1] That also among the Indians of the eastern part of the Chaco tall individuals are found, is evident from the following statement by Professor Carl Lindman: »Those Indians whom I saw along the Paraguay, opposite Asuncion and northwards, were to a large extent muscular and well built, some, even, were very tall of body and athletic looking.» Lindman (1), p. 72.

[2] These items of information have been supplied me by Professor Gustav Retzius, who has examined the Choroti skulls brought home by our expedition.

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Fig. 22. A woman, with infant. Note that the woman's ear-lobes are pierced, but that she is wearing no ear-lobe discs. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

Fig. 23. A boy and a girl (probably about 7 and 8 years old). Gran Chaco. Bolivia. Photo. E. v. R.

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(22)

292 302 feathers, tied inside a woven or plaited fillet, usually no more than a centimetre wide, of coarse caraguatá, or woollen-yarn (fig. 45).

And it is also principally at dances that the men of the Choroti wear a sort of knitted skullcaps of woollen-yarn, net-like, and with a chin strap.

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Fig. 39. A man with a woven frontlet of wool (greyish-white and brownish-black), and ear-lobe discs of wood. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

531 These hair-nets are often studded with snail-shell spangles (fig. 46), or the chin straps decorated with down (fig. 47). With the magic character of these and other ornaments from the Chorotis, I shall deal in a later chapter.

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translated »big ears» — an appellation subsequently transferred to all such tribes within, or in the neighbourhood of, the Inca kingdom, among whom the wearing of ear-lobe discs was customary.

In our days, the practice of wearing ear-lobe discs is met with among a number of tribes distributed over the whole of that part of South America which lies to the north of the tropic of Capricorn.[1] On the Chaco, ear-lobe discs are extensively worn by the Choroti, Lengua[2] and Ashluslay, and are also found among some of the Mataco and Toba Indians.[3] Also in North America the custom of wearing ear-lobe discs, or blocks, appears to be very ancient.[4] The wearing of this kind of ear discs is, however, not limited to America, but is also found, among other places, in Central Africa.[5]

Fig. 52. Brush-like ornament of false hair, for wearing pushed in under the frontlet. Choroti. Gran Chaco. Bolivia. [6] n. Riksm. 03. 3. 65.

Among the Choroti, all the men and youths have their ear-lobes pierced, and in the holes they wear discs (see for instance figs. 17, 30, 39, 53). These discs were almost always used for everyday wear, and invariably on state occasions. It very seldom happened that I saw a Choroti man without his ear-discs. Latterly, the practice of wearing ear-lobe discs has, in the same way as other old customs once prevalent among the Choroti, become less common, and nowadays it seems that the Choroti, for everyday use at least, often appear without their discs. The piercing of the ear-lobes is performed with a bone awl, or cactus spine, already during boyhood, but I did not see any boys under puberty age wearing discs. Neither is there anything in the literature indicating that Choroti boys put on ear discs before that age.[6]

But, on the other hand, immediately on having had their ear-lobes pierced, the Choroti children take to wearing bits of grass, or very slender

[1] Nordenskiöld (11), map 18.
[2] Koch (1), p. 218, and Hawtrey (1), p. 283.
[3] Nordenskiöld (11), p. 122.
[4] See for instance Moore (2), p. 282.
[5] von Rosen (4), plate 7, fig. A, and von Rosen (7), p. 124.
[6] When it has been stated that the wearing of ear-lobe discs has nothing to do with pubescence [Nordenskiöld (13), p. 68], this is correct only in so far as the ear discs of the Choroti, like the tembeta of the Chiriguano, may, perhaps, first and foremost be attributed with a magical significance, and that their character of being symbols of puberty is only a secondary one. Cf. Karsten (4), p. 155.

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sticks, in the holes that have been made, in order to keep them from closing up. After the healing of the wound, these plugs are, however taken out, and it is only when the boys have reached the age of puberty, that the ear-lobe is gradually distended by means of plugging with a succession of ear blocks, or ear-lobe discs, of increasing sizes. Only youths of mature age, and men, are allowed to take part in certain religious dances. At the performance of these, it is of especial importance to be protected from evil spirits. According to the belief of the Indians, ear discs afford them such protection,[1] and it is therefore possible that this is the reason why the boys begin wearing ear discs only after having attained puberty. For reasons which I shall explain below, I consider that the *piercing of the ear-lobes by no means always implies wearing of ear-lobe discs*. Among the Choroti, the ears of little girls are often pierced in the same way as in the case of the boys[2] (see the woman with pierced ear-lobes in fig. 22), *but never once did I see a Choroti woman wearing discs in her ears*, nor is there in the literature on these Indians any photographic evidence to be found, as far as I know, of Choroti women wearing ear discs. Further, neither Baron Erland Nordenskiöld,[3] nor Doctor Rafael Karsten, both explorers who have lived for a long time among the Choroti, are now able to recollect with any certainty having seen any Choroti woman wearing ear discs.

To cause bleeding by perforating the skin, has among the Chorotis, as among other tribes in the Chaco — a magic significance, and the possession of many scars is considered a great advantage. Thus, for instance, the Chaco Indians will with ostentation and satisfaction show even scars from bites of the palometa fish. When the Choroti believe themselves possessed by some evil spirit, they prick themselves with sharp-pointed bone awls, and imagine that the spirit leaves the body with the outflowing blood. About this custom, Karsten writes: »If the arm fails or trembles in pulling the bow, its weakness is, according to the belief of the Chorotis, due to the presence of a mohsek in the blood and they think that the evil demon will leave the body with the blood drawn. The scars left by the cuts are kept up with care and shown with satisfaction,

[1] Karsten (4), p. 134, and Grubb (1), p. 72.

[2] Nordenskiöld observed in a Choroti village that *all* the girls had their ears pierced. According to a letter of his, dated 13 May, 1921. Rockefeller collection of manuscripts, volume 1921, letter N.

[3] According to letter referred to in footnote 2.

9 L should be Choroti. - Amby ed.

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almost with pride. *Evidently it is thought that the very scars afterwards act as a sort of charm against the spirits.*'[1]

If scars left by wounds are considered to possess desirable, magical properties, it would easily be supposed that perforations that have been kept open must possess the same properties in a greatly enhanced degree. Among the Chiriguano, neighbours of the Choroti, the actual piercing of the lower lip constituted the most important of the ceremonial acts performed on the boys on their having attained puberty, and among the Chané — whose culture is akin to that of the Chiriguano — not only was the lower lip pierced on this occasion, but the boys were also given other wounds on the body.[2]

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From what I have adduced above, it will therefore be seen that, according to the belief of the Indians, *the making of punctures or perforations on the body, has in itself magic effects, and, consequently, that these magic effects are not believed to arise with the fixing of some ornamental object of magical character — e. g., a tembeta, or an ear disc — into the perforation.*

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This being so, here, in my opinion, lies the explanation of the fact that Choroti girls sometimes have pierced ear-lobes, although it has never *with certainty* been shown that they ever wear ear discs. On the other hand, from reasons I shall present below, it is *probable* that old Choroti women, with distended ear-lobes, *exceptionally* do wear ear discs.

I myself, as well as other investigators of the Chaco peoples, have seen elderly women among the Choroti with holes in their ears so large that one was forced to suppose that the lobes had been stretched in some way or other. Such stretching, however, may not *necessarily* be due to the wearing of ear blocks, but *may* have been produced by manual manipulation. That, by such means, perfectly monstrous distension of the soft parts of the body can very well be brought about, is proved by, among other things, the practice of the Hottentot women of lengthening out — merely by frequent pulling — the labia minora into an enormous size.[3] A similar stretching of the hole in the ear-lobe might, from the Indians' point of view, have for its object the increasing, proportionately to its size, the magic properties of the hole. Among the Incas, the size

[1] Karsten (4), p. 157. Italics by von Rosen.
[2] Karsten (4), p. 200.
[3] von Luschan (1); p. 378.

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of the hole in the ear-lobe was probably an important matter, a point noticed also by Karsten, who writes on this subject: »Of all marks of honour which they received at this initiation, *the holes* in the ear-lobes were the most important. The Inca himself pierced the ears of the young princes with big golden pins, which afterwards were left in the wounds *in order to make the holes larger.*»[1]

For reasons which here follow, I can, however, quite well imagine that exceptions might be made from the rule that ear discs may not be worn by women. Karsten states his observation that women, as a rule, take no part in religious ceremonies, incantations or dances, but adds: »There are exceptions to this rule, and just as elderly women, who have been properly initiated, may perform certain religious ceremonies of their own, so may they also occasionally take an active part in certain religious dances.»[2]

Bearing in mind the fact that ornaments of magical character have their specific uses at dances and other religious ceremonies, and also that ear blocks, as we have seen, are looked upon by the Choroti Indians as means of protection against evil spirits, I do not find it improbable that *elderly women, who have been initiated in magic ritual, on certain occasions may wish to strengthen their power to resist evil spirits by enlarging, as do the men, the holes in their ear lobes by putting in blocks, or discs.*[3]

Among another Chaco tribe, the Toba Takshik, Dr Lehmann-Nitsche has observed that a certain distinctive attribute, which as a rule is exclusively meant for the one sex, may, in rare and exceptional cases, be assumed by the other. Lehmann-Nitsche tells of a man who had been given the tattooing especially distinguishing women, but points out that this must have been an extremely rare case, seeing that it greatly astonished even the interpreter, and suggests the possibility of the man not being considered an »homme normal».[4] It is noteworthy that the tattooing in question, described and reproduced by Lehmann-Nitsche, is practically identical with a tattooing design that adorned a Choroti *man* (see fig. 66).

[1] Karsten (4), p. 136. Italics by von Rosen.

[2] Karsten (1), p. 2.

[3] Fig. 30 in »Indianlif» (Nordenskiöld (13) shows a redoubtable old Choroti woman, who had executed the tattooing Nordenskiöld had done on himself. This old woman's ear-lobes are enormously distended.

[4] Lehmann-Nitsche (3), pp. 15 and 16.

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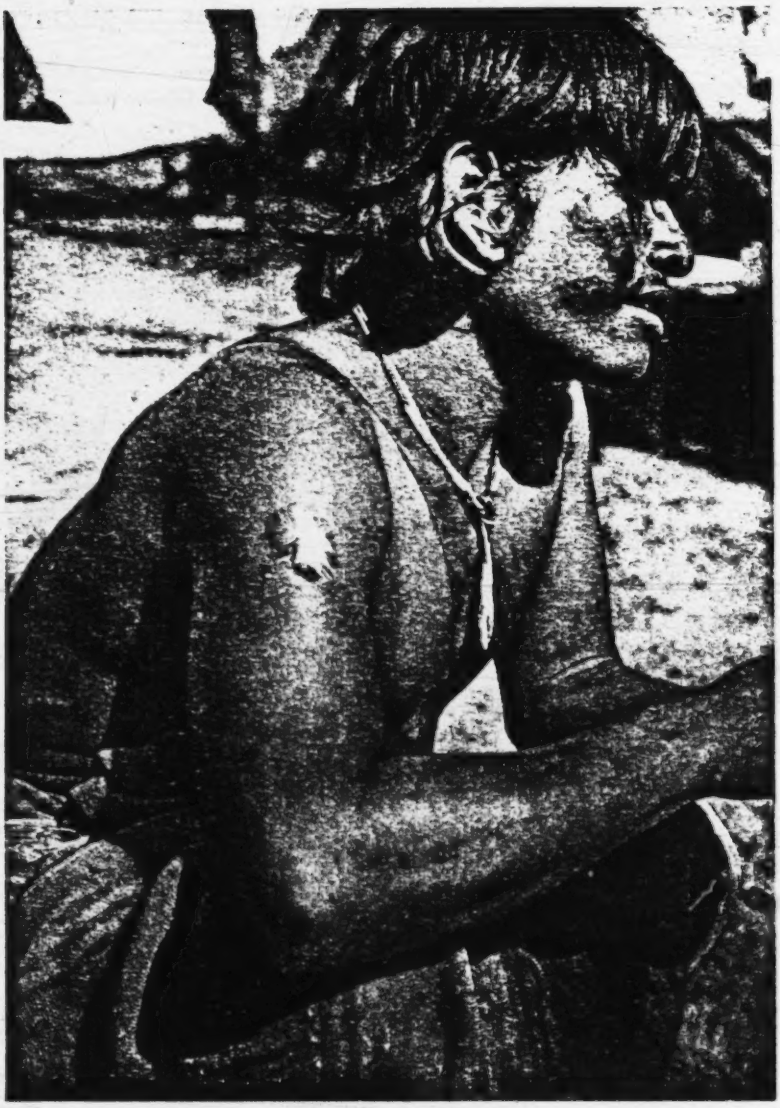

Fig. 53. A man with ear-lobe discs, set with pieces of tin. On his right upper arm is seen the scar from the terrible bite of a palometa fish (Serrosalmo sp.). Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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291 [177] The women of the Choroti, especially the younger ones, have very generally adopted the woman's garment common among the Chiriguano, which is called »tipoy» and consists of a cloak-like covering hanging from the shoulders, where it is secured with cactus spines (fig. 62). The cloth forming the material of these tipoys, is an acquisition by the Choroti from the whites. I saw Choroti girls that had not troubled to sew their tipoys together, but thought it sufficient to pin the edges together with cactus spines down one side. Occasionally the girls wore the tipoy from the hips, as seen in fig. 61. The original garb of the Choroti women consists of a deer skin, or a length of home-woven woollen cloth wrapped round the hips (fig. 21), leaving bare the upper part of the body. Nowadays one only sees elderly women dressed in this way.

301 Contrasted with the men, the women have very few, and very unpretentious, ornaments. The girls wear a necklace or two, made from glass beads or porcelain buttons (fig. 61 and 62), and lizard-skin finger rings. Now and again one may see a woman with armlets, or finger rings, consisting of threaded glass beads, pieces of leather or palm leaf (fig. 62, the girl on the extreme right, and fig. 152).

302 304 The practice of decorating the face by tattooing and painting is common to both sexes. The men, however, are not always tattooed, which, on the other hand, is the case with the women. Painting of the face, which may safely be assumed to possess magic significance,[1] is performed by men as well as women on all important occasions.

304 Whilst[1] it is the prerogative of the men to adorn themselves with the showier ornaments, it is generally the women who display the more abundant tattooing (cf. figs. 63—66 and 71—76). The tattoo marks that a fully grown Choroti woman wears on her face, have not been worked on her all at the same time, but during different phases of her life as she grows up. According to Nordenskiöld, the Choroti begin tattooing their children already when the latter have reached an age of from 5 to 7 years,[2] and thenceforth various designs are added as the years pass. As a rule, the men are not tattooed, or they may have just a few tattoo marks (fig. 63), and it is exceptional to see Choroti men as profusely tattooed as the men in figs. 64—66.[3] As I have already pointed

[1] See Chap. XII.

[2] Nordenskiöld (13), p. 68.

[3] Compare, with this for instance, Lehmann-Nitsche (1), pp. 80 and 81, and Nordenskiöld (13), pp. 69 and 70.

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out, the tattooing reproduced in the last-mentioned diagram is almost 304
identical with the face-tattooing on a Takshik man reproduced by Lehmann-Nitsche.[1]

Only grown women are plentifully tattooed, and a tattooing like the one reproduced in fig. 73 is *never found on any woman under marriageable age.* Just as with us the girls are not at once given long skirts to wear, but only by degrees, so the girls of the Choroti with the passing of the years are given additional tattooing, until, having grown into mature women, their face-ornamentation is complete.

With many Chaco tribes, tattooing is probably as a rule a puberty [171]
sign of a magic character, especially set apart for the women. Among the Ashluslay, only the women are tattooed,[2] and, according to Karsten, the women of the Ashluslay on the lower reaches of the Pilcomayo are tattooed as they enter upon puberty.[3] Among the Toba, only the women are as a rule tattooed.[4]

The tattooing is generally performed with cactus spines (fig. 77), but exceedingly sharp-pointed bone awls (figs. 81 and 88, c) are also used. The latter are often wound with woollen yarn, leaving only a few millimetres from the point, so as not to penetrate unnecessarily deep into the skin (figs. 185 and 186). These wool-wound bone awls are, however, primarily intended for being used in a peculiar kind of blood-letting, to which I shall again refer in connexion with the magic practices of the Choroti. The most practical way in which to perform tattooing is undoubtedly by using a small bunch of Cactus spines, for then several punctures result from each stab. On the only occasion when I saw tattooing being performed, the puncturing was made with bone awls, it is true, but that may possibly have been owing to there being no cactus spines handy. Other investigators, who have spent longer time than myself among the Choroti, only mention cactus spines as puncturing instruments in tattooing.

Tattooing is performed in the following way: With saliva strongly mixed with soot, the tattooing artist (often an elderly woman), by means of a small stick outlines the desired pattern on the face of the person who is to be tattooed, whereupon the tattooer stabs at the sketched

[1] Lehmann-Nitsche (3), p. 16.

[2] According to Nordenskiöld, the Ashluslay girls receive their first tattoo marks at the age of about 5 to 7 years. Nordenskiöld (13), p. 68.

[3] Karsten (4), p. 24. Cfr. also what Karsten says about tattooing, pp. 220—222.

[4] Lehmann-Nitsche (3), p. 16.

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Fig. 63. Fig. 64. Fig. 65. Fig. 66.

Figs. 63—66. Tattooing on men. From author's sketches.

Fig. 67. Fig. 68. Fig. 69. Fig. 70.

Figs. 67—70. Face-paintings on untattooed men. Figs. 67 and 68 in red; fg. 69 in Black; fg. 70 in Black and red (the lines at the root and ridge, of the nose are black, the rest are red. Chorote. Gran Chaco Bolivia. From author's sketches.

304 pattern with the cactus needles, or bone awl, until beads of blood appear, when the soot-mingled saliva is rubbed into the punctures. After healing, the tattoo marks assume a bluish colour.

302 At dances, lovers' meetings, and other important occasions, men and women paint their faces (figs. 62, 67—70 and 74—76). Face-painting may be done either in red (figs. 67—68 and 74—76) or in black (fig.

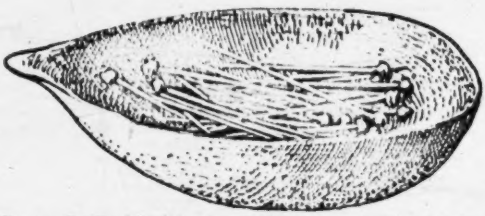

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Fig. 77. Small calabash bowl containing cactus spines for tattooing. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 87.

Fig. 78. Red paint, ready prepared for face-painting. This lump of paint, which is wrapped in a sheath of palm leaf, may possibly have reached the Choroti by barter from the Chiriguano. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 104.

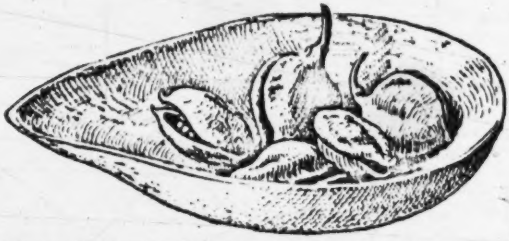

Fig. 79. Small calabash bowl containing fruits of Bixa orellana. From the seeds of these fruits colour is prepared for face-painting. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 103.

Fig. 80. Miniature bowl of wood, holding colour seeds. The bowl and the seeds have possibly been obtained by the Choroti through barter with the Chiriguano. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 180.

69), or in both red and black (fig. 70). Painting the face in red is commonest. The black paint consists of soot and saliva, whilst the red colour (fig. 78) is prepared from seeds of Bixa Orellana (fig. 79). These seeds are usually obtained by barter from the Chiriguano, and are carefully kept by the Choroti in small calabashes. I have also seen miniature wooden bowls (fig. 80) used as receptacles for these colouring seeds after they have been taken out of the follicle.[1] The soot is usually kept in a

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[1] Owing to a mistake having occurred as to the identity of seeds, in my first treatise on the Choroti I have erroneously stated that the red paint used in face-painting is made from the seeds of Caesalpina melanocarpa.

302 bamboo holder, 10 to 15 cm long, and 1 to 2 cm in diameter. The bottom of this cylinder consists of a joint in the bamboo, and for its mouth there is a stopper of wool, grass, bast or bees-wax.

[291] In painting the face, the paint is put on with small stamps, which either consist of the jaw-bone of a siluroid (figs. 81, 88 b) or of a piece of carved wood (fig. 82).

[531] Flat wooden stamps with diamond pattern are also used.[1] Those interesting stamps that are made from jaw-bones of fishes, are undoubtedly the prototype of the wooden stamps.

Fig. 81. Jaw-bone of a siluroid. The row of teeth is used as a stamp for putting on the paint in face-painting. The fore-end of the bone is sharpened to a point, so that this object can also be used in tattooing and blood-letting. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 100.

Fig. 82. Paint stamp made of a cane splinter. Is used in the same way as the fish jaw in fig. 81. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 94.

[304] For cutting off the hair to the desired length (figs. 16—24, 30, 39, 53 and 83), the Choroti use the jaw of the palometa fish, which is set with exceedingly sharp teeth (fig. 84).[2] These are also used as louse-combs, although the Choroti as a rule carry on their louse-hunting only by the means that nature has provided them with. It is possible that once upon a time palometa jaws formed the only combs that the Choroti possessed, but that they afterwards went out of fashion when the more practical wooden or split-cane combs came into use. Of the latter, we may take it that the split-cane combs are the

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Fig. 83. A man with hair hanging loose. Choroti. Gran Chaco Bolivia. Photo. E. v. R.

Fig. 84. Jaw of palometa fish (Serrosalmo sp.), used for hair-cutting. Also said to be a louse-comb. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 10. 3. 29.

[1] Nordenskiöld (11), fig. 42.

[2] Nordenskiöld (13), p. 100.

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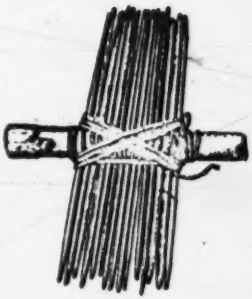

Fig. 85. Split-cane comb. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 74.

Fig. 86. Wooden comb, carved in one piece. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 70.

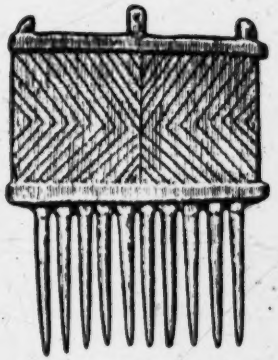

Fig. 87. Wooden comb, carved in one piece; the handle carved on both sides into angular ornament. Choroti. (This comb may possibly have been made among the Chiriguano.) Gran Chaco. Bolivia. 2/3. Riksm. 10. 3. 38.

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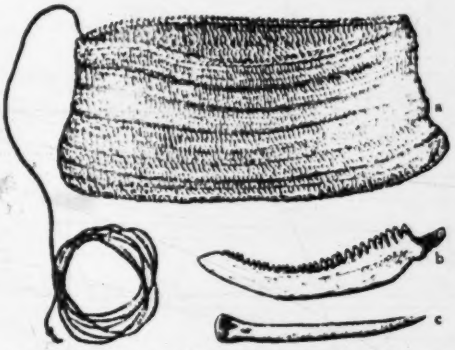

Fig. 88. Miniature bag (a) of undyed (greyish-white), brown, yellow, and black caraguatá fibre. When the author obtained the bag, it contained a stamp for face-painting (b) and a small bone awl for tattooing and blood-letting (c). Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 101.

older cultural element. The split-cane comb in fig. 85 consists of a piece of cane, about 7.2 cm long, into which a split has been made from one end, so that only 2 cm of the other end of the cane are left intact. The insides of the two legs forming this crotch have been pared down so that the space between the legs of the crotch equals the thickness of the comb teeth at their middle, i. e., in this case about 4 mm. In the fork of this crotch the teeth, 1 to 2 mm thick, have been placed and secured by tying, with their flat sides together. This class of Choroti combs are generally of a construction differing somewhat from the one described, in that the cane has not been split from one of the ends in order to afford room for the teeth, but, instead, there is usually in the middle of it a recess, into which the teeth are fixed in the way I have described.

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172 Particulars of the objects in question are given in the table here below:

Objects painted all over with red paint, found by the author in ancient Indian graves at Casabindo, Puna de Jujuy, Argentina.

Rikem. coll. No.	Class of object	No. of fig. in von Rosen (10)	No. of page on which object is mentioned in von Rosen (10)
03. 3. 6797	Long handled spoon	—	38
03. 3. 6836	Pointed stick	53	37
03. 3. 6809	Distaff	—	31
03. 3. 6819	Small club (fish club?)	42	34
03. 3. 6833	» » » »	41	33
03. 3. 6820	Wooden knife	39	38
03. 3. 6871	Miniature bow	45	34
03. 3. 6873	Fragments of arrow shaft	-	35
03. 3. 6821	Mesh-spacer	39	33

304 751 On page 72 et seq., I have already described the manner in which the Choroti tattoo themselves, and also pointed out that this tattooing is of a magical character whilst at the same time this practice, like the painting of the face, is to a certain extent connected with the sexual life of the Indians. It is highly probable that not only the painting, but also the tattooing, of the face among the Choroti is done in order to prevent evil spirits from entering the body by way of eyes, nose, mouth and ears.[1] The arrow-like signs that sometimes are found as ornament done in tattooing or painting among the Chaco Indians (see for instance fig. 66), are, according to Karsten, in some way connected with the circumstance that the spirit of illness, called »mohsek ihitek» (i. e., the arrow-shooting mohsek) uses arrows for working harm upon people, for which reason arrows may be considered as amulets.[2] This, the Indians' way of looking at things, corresponds to the old saw: »like cures like», or »taking a hair from the dog that bit one».

531 751 Figures and ornamental signs, incised or burned-in, on calabashes for household use (figs. 127, 129—132) as well as on magic rattles of calabash (figs. 170 and 181), are, at least in certain cases, to be regarded as magical protective devices against evil spirits.[3] The significance of two figures, resembling human beings, carved on the magic rattle in fig. 181.

[1] Karsten (4), pp. 8 and 10.
[2] Karsten (4), pp. 196 and 191.
[3] Karsten (3), p. 179.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

826 that the hair in certain magic rites could represent the person from whom it had been taken.[1] We find a similar belief existent among the Choroti who, because of it, carefully burn the hairs that they cut off or pluck out. They also believe that the souls of the dead, as well as evil spirits, are [764] capable of working harm on the living by means of the hair, and on this belief is based the custom of the Choroti women of cutting off this adornment on the death of their husbands.[2] Similarly, the practice universally prevalent among the Choroti of plucking out eyebrows, eyelashes and other hairs of the face, the hairs of the armpits and about the genital parts, is probably due to this belief.[3] When a Choroti Indian takes a scalp, or fixes the scalp lock of a slain foe under his frontlet (see pp. 60, 61 and 103), it is probable that he considers that he has not only succeeded in obtaining a material trophy, but that the possession of the scalp or scalp lock to some certain extent confers upon him power over the spirit of his fallen adversary.[4]

[727]

[412]

Fig. 185. Bone awl for blood-letting. Probably made out of an ulna of a puma. The awl is wrapped round with a red, woollen fillet, to prevent it from penetrating too deeply into the muscles. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 82.

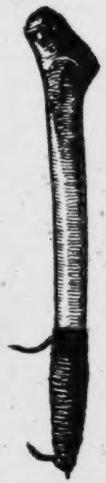

Fig. 186. Bone awl for blood-letting; also used for tattooing. Probably made from an ulna of a raptorial bird. The awl is wrapped round with grey and red woollen yarn (the latter nethermost) so as not to enter too deeply into the flesh. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 83.

304 412

In the foregoing (pp. 63 and 75) I have mentioned that the Choroti on certain occasions perform a kind of magic blood-letting by means of bone awls. I have also given an account of the Indian conception of the effects of this kind of blood-letting (see pp. 63 and 64). I will now add that I think it probable that the *material* of which the awl consists also plays a certain part.

Nordenskiöld has observed that the Ashluslay, when they are out looking for nests of wild bees, prick themselves above the eyes with a

[1] Even as early as in the Wærend law, mention is made of hair being used in witchcraft.
[2] See page 182.
[3] Karsten (4), p. 10.
[4] Cf. Karsten (4), p. 60.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

wooden awl, so that blood flows.[1] In reply to my question, Nordenskiöld has been kind enough to tell me that he never saw the Indians using awls of any other material than wood for this purpose. On the other hand, both he and I, and other Chaco students, have seen Choroti pricking themselves with bone awls (figs. 185 and 186) when feeling tired. In order to ascertain whether the Indians in making their bone awls gave preference to any particular bone of any particular animal, I asked Professor Lönnberg to try and identify the animals from which the material had been taken for all the bone awls in my collection. Professor Lönnberg very kindly acceded to my request, and here below I give the result of his investigation.[2]

Awl No. 03. 3. 183. Upper part of right ulna of a large feline animal, probably a female puma.
» » 03. 3. 82. » » » left » » » feline animal, probably a young puma.
» » 03. 3. 181. » » » » » » » » (somewhat smaller than the foregoing).
» » 03. 3. 84. Lower part of canon bone of small ruminant (deer calf?).
» » 03. 3. 184. » » » » » » » »
» » 03. 3. 185. » » » » » » » »
» » 03. 3. 83. Probably a fragment of ulna of a bird (raptorial?)
» » 03. 3. 186. » » » » » » » » of a species somewhat smaller than the foregoing.

The remainder of the bone awls that were submitted by me to Professor Lönnberg consisted of fragments, impossible of determination.

Unquestionably, it must strike one as peculiar that out of eight determinable pieces of bone, three of them probably consist of ulnæ of such a ferocious animal as the puma (the killing of which to the Indians is a matter of deadly peril). Another thing, which is in my opinion noteworthy, is that two of the awls probably consist of ulnæ of raptorial birds, and that the three remaining ones all consist of canon bones of some species of small ruminant. In fig. 81 I have reproduced an awl consisting of the jawbone of a Siluroid: this implement, however, at the same time being a kind of stamp for applying red paint to the face. Whilst paying a visit to the Gothenburg Museum, I was, by the courtesy of the Keeper of Ethnography, Baron Nordenskiöld, given the opportunity of going through the collection of bone awls that he has acquired from Indians of the Chaco, which collection now forms part of the Museum. On examining

[1] Nordenskiöld (18), p. 49.

[2] In accordance with letters dated July 2 and 18, respectively. Rockefeller collection of Manuscripts, Volume 1921, letter I.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

XVII.

Objects for deforming the Body.

The Chaco tribes here dealt with wear no labrets, do not bore through the nasal septum, do not deform the head, and do not strap their calves in an unnatural way. The (1) Choroti, (2) Ashluslay and some (9C) Mataco Indians (Mataco-Guisnay), however, bore the flap of the ear, all the men, and some of the women, wearing blocks of wood or pieces of cane in, it so that the flap surrounds the objects like the tyre of a bicycle wheel.

Ear appendages (Map 18) of the kind here in question are not worn by any other Indian tribe I visited. Some of the Toba (X 8) wear them, but I did not visit this section. Several of the tribes known to me, however, wear rings, small blocks of wood or teeth etc. in their ears.

The custom of forcing the flap of the ear round a block of wood or the like, was universal in old (18) Peru[1]). The Indian chiefs in the Inca kingdom, who wore these ear-blocks, were called «orejones» by the Spaniards. Numerous ear appendages of this kind[2]), as well as earthenware vessels with figures of Indians thus adorned[3]), have been found on the Peruvian coast (A, K). For the rest, they are found in Brazil among the Botocudo (45)[4]), among the (67) Suyá[5]),-

[1]) Cobo, Vol. 4, p. 159.
[2]) Baessler, Pl. 27, fig. 399—403; Reiss and Strübel, Vol. 3, Pl. 78.
[3]) Also in (J) Tiahuanaco. Posnansky.
[4]) Wied, Vol. 2, p. 5.
[5]) v. d. Steinen (2), p. 207.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XVIII.

Tattooing (Map 19).

We distinguish between two kinds of tattooing, scar-tattooing and ordinary tattooing of incisions filled with colour.

It is only the latter kind that is practised in the Chaco.

In many parts of S. America the Indians paint their skins with the cauterising juice of the »Genipa» fruit.

This colour, which is bluish violet, lasts for several days, and it is probable that travellers have sometimes mistaken Genipa-painting for tattooing.

I have seen real tattooing among the (2) Ashlulay, (1) Choroti, (6) Mataco, (7) Toba[1]), (3) Tapiete and (4) Chiriguano[2]), i. e., wherever genipa is wanting.

In the whole of N.E. Bolivia and the adjoining districts of Peru and Brazil I have seen no tattooed Indians.

As far as I know, painting the face and body with genipa is practised by the Yuracáre, Huanyam, Pauserna, Cavina, Atsahuaca and Tuyoneiri. Among no tribe have I seen both real tattooing (puncture tattooing) and genipa painting.

PATER SCHMIDT[3]) speaks of tattooing among these tribes, in addition to those mentioned above: Indians on the Peruvian coast, (V 6) Caraques (Ecuador), (7 x) Cueva[4]), (8 x) Warrau (55) True Caribs, (48) Desana, (9 x) Passé

[1]) See also DIXEY, p. 10.
[2]) Very rarely.
[3]) p. 1084.
[4]) Wrongly marked on Pater SCHMIDTS map.

2: Karsten E-5 (1911-1913)1932 S17 Mataco S17
Toba SI 12
Choroti SK6

CHAPTER II.

General characteristics and material culture.

C M 141 142 In their physical characteristics the *Choroti* and the *Mataco* show the same affinity as appears in their languages. Both of them are strongly built and of middle height, the Mataco somewhat taller than the Choroti. The average height of the former seems to be about 163 or 164 cm. for the men and 154 or 155 cm. for the women; of the latter about 162 or 163 cm. for the men and 152 or 153 cm. for the women. In their sturdy appearance M [174] the Mataco resemble the mountain Indians, and in former times there has probably been intermarriage between them and the Quichuas. The hair of both tribes is black, coarse and straggling and is worn long by both men and women, except when it is temporarily cut short for ceremonial reasons. The eyes are dark-brown, the nose somewhat flattened, and the features of the face generally irregular, especially among the Mataco. C M Both tribes know the custom of tattooing the face, the women being al- [304] ways tattooed, the men only in some cases, and never as completely as the women.

T 142 114 I need not dwell upon the physical characteristics of the *Tobas* since they have been described by nearly all authors ever since Lozano. They certainly form an easily recognisable type of Indian, differing considerably from the rest of the Chaco tribes, one salient feature being their remarkably tall and strong build of body. The Tobas are in fact among the tallest of all South American Indians, being in this respect comparable with the ancient Patagonians, to whom they were probably related, as well as with the present Ona Indians of the mainland of Tierra del Fuego. The physical anthropology of the Tobas, just as that of the Mataco and the Choroti, has been studied scientifically by the German anthropologist Dr. Lehmann-Nitsche. [1])

[1]) Lehmann-Nitsche, R. *Estudios antropológicos sobre los Chiriguanos, Chorotes, Matacos y Tobas* (*Anales del Museo de La Plata*. Buenos Aires, 1908).

2: Karsten E-5 (1911-1913)1932 S17 Mataco S17
Toba S112
Choroti SK6

M 304 inflammation in the face the girl has to fast for some days after the operation.

M 304 751 Tattooing has a purely magical significance, as may be inferred from the fact that the Mataco and the Choroti women regard it particularly as a protection against disease. Analyzing the custom, we can distinguish at least three factors in it, all of which are associated with magical ideas: first, the scarification or bleeding itself; second, the matter (soot, ashes) rubbed into the wounds; and third, the patterns and marks incised which remain when the wounds have healed. Bleeding and scarification are common practices of purely magical significance among all Indians of South America, and as far as the Pilcomayo tribes are concerned I shall have occasion to mention this custom again in a later chapter. The very scars left after such operations are regarded as a protection against evil spirits. Further, that tattooing is done by means of ashes or soot is certainly not an accident. The use of ashes for superstitious purposes is of frequent occurrence among the Indians, the general idea being that ashes are a prophylactic against evil spirits. The custom of mixing ashes or soot with saliva is significant from the same point of view, for magical virtues are commonly ascribed to the saliva.

M [789]

M [827]

C 304 751 789 All women among the Choroti are tattooed in the same way, that is, have the same marks and patterns applied to the face, and no full-grown woman lacks this tribal characteristic. Since tattooing is regarded as a permanent protection against evil spirits and sickness, it is natural that a woman lacking it should be shunned by the men, but it is not a means of attraction or a »decoration» in the common sense of the word.

T 304 184 [362] As to the *T o b a s*, tattooing or the custom of making indelible marks on the body or the face was formerly in vogue among all Toba tribes as among all peoples of the Guaycurú-group; but the Bolivian Tobas of the present day have dropped this custom, contenting themselves with simple body painting. Tattooing among the Tobas seems to have been limited to the female sex, as indeed is the rule among the Chaco tribes. According to d'Orbigny, the Toba girls were tattooed when they attained puberty and became marriageable. Since the custom is no longer practised by the Bolivian Tobas I have not seen how it is done by them. The procedure, however, is the same as among other Chaco tribes, incisions being made in the face and ashes rubbed into the wounds. As appears from the photographs of some Toba women which Dr. Lehmann-Nitsche took in Buenos Aires in 1899 the tattooing practised by the Toba women was exceedingly elaborate and complicated.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI12
Choroti SK6

The custom of tattooing, as it was practised by the ancient Guaycurú is described by Father Dobrizhoffer in much the following way. The Abiponian women, says the Father,[1]) not content with the marks common to both sexes, have their face, breast, and arms covered with black figures of various shapes, so that they present the appearance of a Turkish carpet. As soon as a young woman is of age to be married, she is ordered to be marked according to custom. She reclines her head upon the lap of an old woman and is pricked. Thorns are used for a pencil, and ashes mixed with blood for paint. The old woman, sticking the points of the thorns deep into the flesh, describes various figures till the whole face streams with blood. The first day she is sent home with her face half pricked with the thorns, and is recalled the next and the next after that, to have the rest of her face, the breast, and the arms pricked in like manner. Meantime she is shut up for several days in her father's tent and wrapped in a hide that she may receive no injury from the cold air. Carefully abstaining from meat, fish, and some other sorts of food, she feeds upon nothing but a little fruit which grows upon brambles and conduces much towards cooling the blood.[2])

From Dobrizhoffer's account it appears that tattooing was practised by the ancient Guaycurú in the same way as by the present-day Chaco tribes.

Among the puberty customs we may also, in a certain sense, reckon the perforation of the ear-lobes for the insertion of wooden plugs or tubes. The perforation takes place even before the age of puberty, when the boy or girl is five or six years old, but the wooden ornaments are inserted later and are a sign that the boy or girl in question is regarded as a man or woman. The ear-lobe is pierced with a cactus thorn by an old woman, a grass or small wooden pin being inserted so as to prevent the wound from closing. Later on bigger and bigger pins are inserted, by which the holes are more and more extended, and lastly the plug or tube, which forms one of the most prominent ornaments of the Indians. The wooden plugs which the Tobas formerly wore in their ear-lobes, were so thick and heavy that they hung nearly down to the shoulders. In our own days they are only used by the Argentine Pilága, not by the Bolivian Tobas. It is to be observed that although the ear-lobes of both sexes are perforated, the ear-plugs or tubes are among the Choroti, Mataco, and Ashluslay worn chiefly by men, seldom by women, whereas among the Tobas *only* men wear them. These ornaments seem to have chiefly a magical significance.

[1]) Dobrizhoffer, *An Account of the Abipones*, II. 20 sq.

[2]) This fruit is evidently the tasi fruit mentioned above, which thus is still eaten by the Toba women when they have to observe ceremonial fasting.

2: Karsten E-5 (1911-1913)1932 S17 Mataco
Toba S112
Choroti SK6

C
T
304

Choroti-Indians (Chaco).

Toba-Indians (Chaco).

Choroti-Indians (Chaco).

Choroti-Indians (Chaco).

Toba-Indians (Chaco).

Toba-Indians (Chaco).

Choroti-Indians (Chaco).

Choroti-Indians (Chaco).

Toba-Indians (Chaco).

Cho. Indians (Chaco).

Tattooings of the Choroti and Toba Indians.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

and 40). Miss Agnes Branting, who has kindly examined the textiles here reproduced, found the frontlet in fig. 40 especially interesting, as similar fillets are woven by the peasantry in very many provinces of Sweden, for instance Scania, Halland, Wermland and Helsingland. Miss Branting writes on this matter as follows: »Fillets of this kind are made without any other implement than just any sort of object to which the yarn can be attached, say a weighted pincushion held on the knee. The weaving is begun from the centre of the fillet by crossing one yarn over another; for each turn a yarn is added (from a number fastened with pins) on either side. When the edge yarn has been reached, this is turned inwards, and the plaiting then proceeds from the edges towards the centre. This gives a certain firmness and compactness to the edges, and makes the middle portion slightly thinner, as may be noticed if looked at against the light.»[1]

Sometimes the frontlets are decorated with snail-shell spangles, sewn on, although such pieces of magnificence as the frontlet here shown in fig. 41 are very rare. From fig. 42 can be seen the way this frontlet is meant to be worn. These very decorative snail shell spangles are made from the shells of a large, white land snail (Borus oblongus, fig. 43), common in the Chaco. The Choroti do not themselves make these snail-shell spangles, but obtain them through barter from other tribes.

Narrow frontlets of woollen yarn (see fig. 30: the 3rd and 4th men from the left) or birdskin (see figs. 17 and 30: the boy who is fifth from the left) are of very common occurrence; less frequently seen are frontlets made from palm leaves, some of which are provided with chin straps, so as not to slip easily off the head (fig. 44).

Fig. 38. Legging, of deer-skin with yellowish-brown hair-covering remaining. Worn for protection against thorny plants. Choroti. Gran Chaco, Bolivia. 1/4. Riksm. 03. 3. 383.

At dances and other festive occasions, the men are fond of wearing particularly handsome, broad frontlets or head ornaments of stiff or downy

[1] Compare with this a method of hand-weaving described from the Choroti by Erland Nordenskiöld. Nordenskiöld (13), p. 111.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

kind, the total length of which may amount to as much as 15 metres. Thus, for instance, the ornamental outfit seen in fig. 56 consists of two necklaces, respectively 4.39 and 4.61 metres long.

Necklaces of mussel- or snail-shells of the shape shown in fig. 57 and 58 are also popular. The necklace, fig. 57, consists of 15 spangles made from shells of the common river mussel of the Chaco. The spangles, which are only slightly more than one millimetre thick, are chipped or ground into more or less circular shape, and in, or near, their centre have a perforation right through. Through these holes a string is threaded, so as to keep the spangles fixed in the way shown in the picture. On the reverse sides the spangles retain the rough, greenish brown surface of the mussel-shell; their front sides display the mother of pearl lustre peculiar to the inner side of mussel-shells. In each spangle the front face is pitted with 4 to 5 shallow borings, which either have a magical significance, or may be only designed to enhance the decorativeness of the necklace.

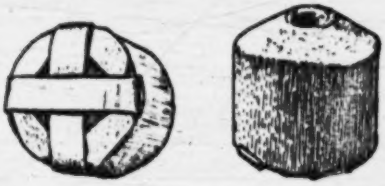

Fig. 54. Ear-lobe discs, of wood with tin mountings. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 57.

Fig. 55. Ear-lobe disc of wood, bored right through. On its cylindrical surface ornament has been burned in. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 56.

The tags on the necklace shown in fig. 58 consist of rectangular slabs of mussel- or snail-shells. These slabs, which have been very neatly chipped into shape, possess on their front sides a beautiful mother-of-pearl lustre, although they are not of such high opalescence as the spangles in the necklace, fig. 57. The front side of each tag has 3 to 5 shallow borings, the hinder side is bone white. Necklaces of this kind, with quadrilateral tags of mussel- or snail-shell, are specially characteristic of the Chaco.[1]

The Choroti have acquired glass beads from the Europeans, but such beads are far less valued than spangles or the thin plates of snail- or mussel-shells.

[1] Krickeberg (1), p. 138.

301

[321]

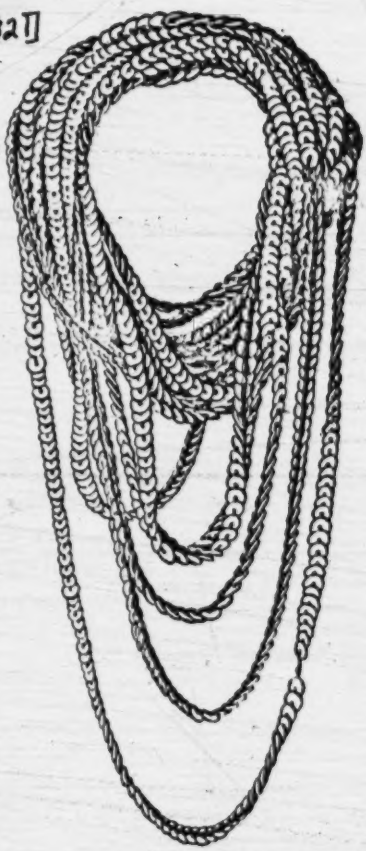

Fig. 36. Ornament consisting of two necklaces formed by perforated and threaded snail shell spangles. One of the necklaces is 4 m 39 cm long, the other 4 m 61 cm. Choroti. Gran Chaco. Bolivia. Riksm. 03. 3. 45 & 46.

Fig. 37. Necklace of mussel-shell discs. Choroti. Gran Chaco. Bolivia. Riksm. 03. 3. 49.

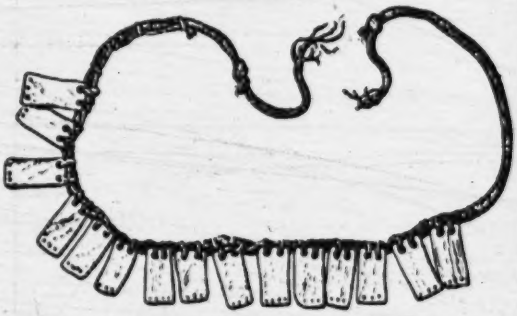

Fig. 38. Necklace of plates of mussel- or snail-shells. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 48.

mussel-shells. Necklaces worn by the women (figs. 61 and 62) as a rule consist of glass beads, but I saw men, too, wearing this kind of ornament (figs. 17 and 53).

The men adorned themselves with armlets, generally consisting of a narrow strip of birdskin, with the down, mostly white, left on (fig. 151). But armlets made out of white-haired oxhide, or palm leaf (fig. 24), were also of common occurrence. Another kind of armlet, which I less frequently saw, consisted of a narrow woollen-band, with snail-shell spangles sewn on (fig. 171, the man on the left in the foreground).

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6 Mataco SI7

C 322 [372]

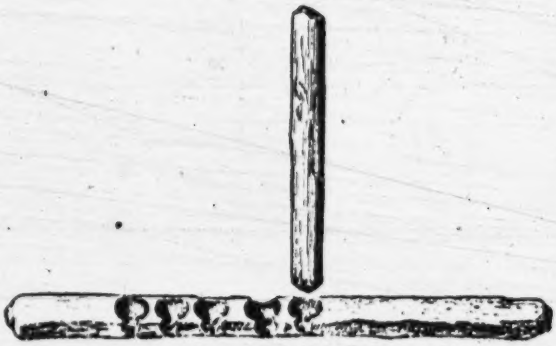

Fig. 148. Fire-drilling implement, consisting of two wooden sticks. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 193.

For scraping and polishing wooden objects, pieces of mussel-shell are used. Formerly, when the Choroti could not obtain iron, all woodwork was produced exclusively by means of fire and mussel-shells. In shaping a piece of wood, the parts that were to come away were burnt in the fire, and the charred parts then scraped off with a sharp-edged piece of mussel-shell.

Nordenskiöld mentions that the Choroti, in the same way as other Chaco tribes, use saws made of hard wood with which they, among other things, saw off the stem and leaves of the, to the Indians so important, caraguatá plant,[1] after having grubbed it up with a fork-like digging stick.

C [412]

Fig. 149. Stems of a liana (Asclepiadaceæ), which forms the material of which fire-drilling implements of the Choroti generally are made. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 196.

C [412 32] C 372 [415 23] M [372 415 23]

Awls for working purposes are made of bone (fig. 147). Bone awls are also used for tattooing (see p. 75, 78), magical blood-letting (see pp. 63 and 64), and as weapons of offence (see p. 101).

Like other Chaco tribes, the Choroti produce fire by drilling. Their fire-kindling implement consists of two round-sectioned, dry sticks of wood (fig 148), usually obtained from a species of liana (of the Asclepiadaceæ), fig. 149. One stick (the female one), which is thicker, and usually longer, than the other one (the male stick), has one or more bowl-shaped indentations, at

Fig. 150. Tail of armadillo, used as a tinder box, Mataco. Gran Chaco. Argentina. Exactly similar tinder boxes are used by the Choroti. 2/3. Riksm. 03. 3. 572.

[1] Nordenskiöld (11), pp. 65 and 66, also (12), pp. 110 and 111.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

The wool of the sheep is turned to account. Sheep and goats are sometimes killed.

Cow horns are used as tinder-boxes, spoons and occasionally trumpets.

Little enclosures are sometimes built for the sheep and goats.

Goat horns are also turned into spoons.

Fig. 11. Wooden Spur.
Ashluslay. G. M. (A. 197) 1/2.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

Pottery painted before burning has been found in the greater part of the high ground of Columbia, in the whole area of the old Incan empire, in the whole of northern and central Argentina, on the (O) lower Rio Parana[1]), on the (N) Alto Parana[2]), in (l) São Paulo[3]), at (q) Laguna in S. Brazil[4]), in (s) Rio Grande do Sul[5]), in the neighbourhood of (a) Rio de Janeiro[6]), on (c) Marajó Island[7]), in (d) Comany in Brazilian Guiana[8]), on the (S) Island of Trinidad[9]), and on the (p) islands of Aruba and Curaçao[10]).

To distinguish the source of the extremely simple ornamentation sometimes painted on the earthenware of the Choroti and Ashluslay Indians is, I think, now impossible. For my part I deem it probable that it is a clumsy imitation of that which they have seen more advanced tribes, perhaps the Chané and Chiriguano, paint on their earthenware.

Wood-carving.

As regards the making of wooden articles by the Choroti and Ashluslay, I have no further information of anthropogeographical interest to give beyond what was said above.

Articles made from bones and snail and mussel shells.

The Choroti and Ashluslay have a whole series of articles made of bones and snail and mussel shells. Respecting their manufacture, I have nothing of anthropo-geographical interest to say.

1) TORRES (2), p. 92, p. 108.
2) MAYNTZHUSEN, p. 466; KUNIKE, p. 150.
3) v. IHERING (3), Pl. 23, fig. 31.
4) H. MEYER, (2), p. 340.
5) Region de Cahy and Forromeco, KUNERT, p. 33. According to Kunert these are post-Columbian.
6) NETTO, p. 412.
7) NETTO, Pl. I, etc.
8) GOELDI, numerous illustrations.
9) DE BOOY, Pl. 8, etc.
10) JOSSELIN DE JONG, numerous illustrations.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

A C 321 401

The Choroti and Ashluslay understand how to bore through teeth and mussel-shells. For this purpose they now use drills, made of darning-needles provided with a handle, which they obtain from the whites. The art of drilling holes in bone must be very ancient in S. America, being certainly known to every Indian tribe. The Tierra del Fuegians, however, seem not to possess necklaces of drilled teeth.

The carving and ornamentation of calabashes.

A C 415 322

Calabashes are extensively used in the whole of tropical S. America. They are lacking only in the extreme south of the continent and among some Gês-tribes who are quite uncivilized. Even up on the Andes the Indians often have calabashes which they get from the valleys on the eastern slopes of these mountains. Calabashes have been found in old excavations in the Puna de Jujuy[1]) where they cannot be cultivated. During his archaeological excavations at Calama in Puna de Atacama UHLE[2]) found numerous calabashes. He believes that the Indians there received them from Argentina.

The Choroti and Ashluslay have no tree calabashes, but use the fruit of a cucurbitaceæ which they cultivate. From these they make boxes, large bowls, etc.

Fig. 67. Calabash box with lid. R. M. (A. 1304). 1/4.

They often provide these boxes with lids which are not infrequently carved in the shape of a star. They are made in the manner described by SÁNCHEZ LABRADOR[3]), speaking of

[1]) LEHMAN-NITSCHE (1).
[2]) (5), p. 109.
[3]) Vol. 1, p. 271.

[text continues on p. 224]

292 feathers, tied inside a woven or plaited fillet, usually no more than a
302 centimetre wide, of coarse caraguatá, or woollen-yarn (fig. 45).

And it is also principally at dances that the men of the Choroti wear a sort of knitted skullcaps of woollen-yarn, net-like, and with a chin strap.

[142 301 304 322]

Fig. 39. A man with a woven frontlet of wool (greyish-white and brownish-black), and ear-lobe discs of wood. Choroti. Gran Chaco. Bolivia. Photo. E. v.-R.

[531] These hair-nets are often studded with snail-shell spangles (fig. 46), or the chin straps decorated with down (fig. 47). With the magic character of these and other ornaments from the Chorotis, I shall deal in a later chapter.

[should be Choroti — analyst]

171 Among the Ashluslay, who are neighbours of the Choroti, *only the men wear ear-lobe discs*, which probably is also the case among the Toba.[1]

As I have pointed out in the foregoing, in their culture the Lengua are very closely related to the Choroti, and therefore it would be of especial interest to obtain exact knowledge as to how the practice of wearing ear-lobe discs is applied among the first-mentioned tribe. In the literature on the Lengua we find a definite statement by the distinguished explorer, Koch-Grünberg, to the effect that among the Lengua it is *exclusively* the men who make use of ear discs,[2] whilst the equally prominent Chaco expert, Grubb, says that it is *chiefly* the men who wear these ornaments.[3] Grubb has published the picture of a woman who has distended holes in her ears, but is *without discs*.[4]

From the statements made by Koch-Grünberg and Grubb, I think it probable that among the Lengua, as among the Choroti, it is the rule that ear discs are worn exclusively by the men, but that exceptions may occur. That such exceptions must be of extreme rarity is as obvious as could be desired, from the fact that Koch-Grünberg never saw a single Lengua woman wearing ear discs.

301 322 Among the Choroti, the ear discs are made of wood, cane, gourd shell or palm leaves. In the wooden discs, the front face is flat and often metal-mounted (figs. 53 and 54), or has ornament burned in (fig. 55); the rear face is usually convex and, as a rule, provided with a hole bored or burned into it, sometimes forming a perforation right through the disc. Occasionally the cylindrical surface of the discs is decorated with ornament burned in.

301 The long necklaces of snail-shell spangles, like most other ornaments among the Choroti, are worn exclusively by men. These necklaces usually have a length of several metres, and rank as highly valued possessions; it is exceedingly difficult to obtain such a treasure from a Choroti by barter. The most elegant of the men often wear several necklaces of this

[1] Nordenskiöld (13), p. 68.

[2] »Diese Pflöcke sind *ausschliesslich eine Zierde des männlichen Geschlechts; die Frauen tragen sie nie.* Das erste Anlegen des Pflockes ist eine Art religiöser Feier, bei der sie nicht gern einen Fremden dulden.» Koch (1), p. 218. Italics by von Rosen.

[3] »Wooden ear-discs are worn as ornaments, chiefly by the men.» Grubb (1), p. 73. Hawtrey, who has also written about the Lengua, does not say whether only the men wear ear discs, but he has described these objects in connexion with other objects of a more or less magic character, which *as a rule* are worn by men. Hawtrey (1), p. 283.

[4] Grubb (1), the top picture on the plate behind page 72.

[text continues on p. 69]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6
Mataco S17

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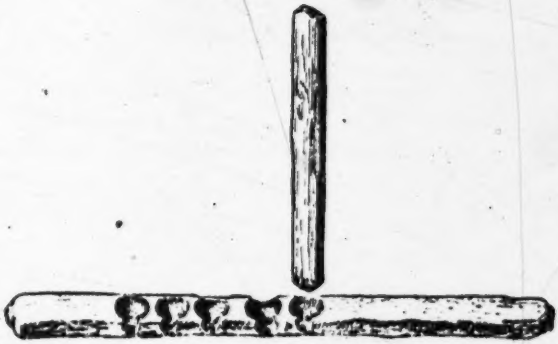

Fig. 148. Fire-drilling implement, consisting of two wooden sticks. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 193.

For scraping and polishing wooden objects, pieces of mussel-shell are used. Formerly, when the Choroti could not obtain iron, all wood-work was produced exclusively by means of fire and mussel-shells. In shaping a piece of wood, the parts that were to come away were burnt in the fire, and the charred parts then scraped off with a sharp-edged piece of mussel-shell.

Nordenskiöld mentions that the Choroti, in the same way as other Chaco tribes, use saws made of hard wood with which they, among other things, saw off the stem and leaves of the, to the Indians so important, caraguatá plant,[1] after having grubbed it up with a fork-like digging stick.

Awls for working purposes are made of bone (fig. 147). Bone awls are also used for tattooing (see p. 75, 78), magical blood-letting (see pp. 63 and 64), and as weapons of offence (see p. 101).

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Fig. 149. Stems of a liana (Asclepiadaceæ), which forms the material of which fire-drilling implements of the Choroti generally are made. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 196.

Like other Chaco tribes, the Choroti produce fire by drilling. Their fire-kindling implement consists of two round-sectioned, dry sticks of wood (fig 148), usually obtained from a species of liana (of the Asclepiadaceæ), fig. 149. One stick (the female one), which is thicker, and usually longer, than the other one (the male stick), has one or more bowl-shaped indentations, at

Fig. 150. Tail of armadillo, used as a tinder box. Mataco. Gran Chaco. Argentina. Exactly similar tinder boxes are used by the Choroti. 2/3. Riksm. 03. 3. 372.

[1] Nordenskiöld (11), pp. 65 and 66, also (12), pp. 110 and 111.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

Archaeological excavations have brought to light wooden bowles in the (D) Puna de Jujuy[1]) and on (A) the coast of Peru[2])

To judge from the distribution, the wooden bowl is a cultural element that the Chaco Indians received from the mountain civilization. The archaeological finds of wooden bowls in N. Argentina show that they were used there in pre-Columbian times.

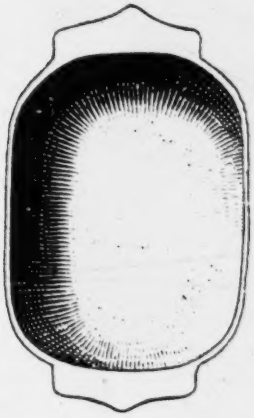

Fig. 20. Wooden dish, Choroti. G. M. (W. 634) 1/6.

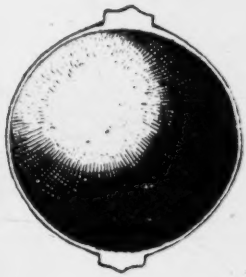

Fig. 21. Wooden bowl. Quichua-Mestizos. Calilegua, N. Argentina. R. M. (u. 24) 1/6

The shape of the little handles on the wooden dishes of the Choroti Indians are very similar to those on the bowls of the Quichua-Mestizos in N. Argentina (Figs 20. 21).

e) *Eating utensils.*

The (1) Choroti and (2) Ashluslay have spoons of wood (Map 13) and horn. As eating utensils they also use mussel-shells and calabashes.

Besides the above-named tribes, I have seen the following tribes in the course of my travels who used wooden

[1]) Lehmann-Nitsche (1), Pl. 5. E. 12.

[2]) Putnam, Pl. 26. fig. 6 and 7.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

A C 321 401

The Choroti and Ashluslay understand how to bore through teeth and mussel-shells. For this purpose they now use drills, made of darning-needles provided with a handle, which they obtain from the whites. The art of drilling holes in bone must be very ancient in S. America, being certainly known to every Indian tribe. The Tierra del Fuegians, however, seem not to possess necklaces of drilled teeth.

The carving and ornamentation of calabashes.

A C 415 322

Calabashes are extensively used in the whole of tropical S. America. They are lacking only in the extreme south of the continent and among some Gês-tribes who are quite uncivilized. Even up on the Andes the Indians often have calabashes which they get from the valleys on the eastern slopes of these mountains. Calabashes have been found in old excavations in the Puna de Jujuy[1]) where they cannot be cultivated. During his archaeological excavations at Calama in Puna de Atacama UHLE[2]) found numerous calabashes. He believes that the Indians there received them from Argentina.

The Choroti and Ashluslay have no tree calabashes, but use the fruit of a cucurbitaceae which they cultivate. From these they make boxes, large bowls, etc.

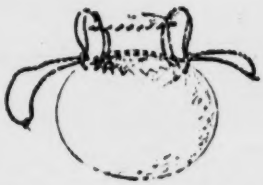

Fig. 67. Calabash box with lid. R. M. (A. 1304). 1/4.

They often provide these boxes with lids which are not infrequently carved in the shape of a star. They are made in the manner described by SÁNCHEZ LABRADOR[3]), speaking of

[1]) LEHMAN-NITSCHE (1).
[2]) (5), p. 109.
[3]) Vol. I, p. 271.

[text continues on p. 224]

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

the Mbayá:— «Labran una especie de calabazos grandes sacandoles con delicadeza un pedazo por el pezon que despues ajusta como tapa», — e. g. *the lid and the calabash-box are always from one and the same fruit.*

The calabashes are frequently ornamented, sometimes by burning, sometimes by cutting. Should a large calabash crack, the Choroti and Ashluslay generally mend it by sewing together the edges. (See Fig. 68).

Calabashes with lids of this kind (Fig. 67) are found among the (18) Quichua[1]), (4) Chiriguano[2]), (6) Matacos[3]), (X 4) Payaguá[4]), (12) Mbayá[5]), Kadiuéo), (8) Lengua[6]), (8) Angaité[7]), (21) Cainguá[8]), and (36) Ijca[9]) as well as the (2) Ashluslay and (1) Choroti.

Furthermore, calabashes with similar lids (Map 42) are mentioned from excavations in (D) ? the Puna de Jujuy[10]), from (A) the coast of Peru[11]), from (γ) the neighbourhood of Cuzco[12]), and from (G) Capamitas in the borderland of Peru and Bolivia[13]). We see that the distribution in S. America of lids of the kind here described is in the west Plainly we have to do with a cultural element which the Chaco Indians have derived from the western area of civilization

Calabashes with lids of a rather different type are mentioned by KRAUSE from the (15) Kayapó[14]), by Kissenberth[15])

[1]) G. M. 15. 1. 87.
[2]) G. M. 15. 1. 144.
[3]) R. M. (M. 1251).
[4]) M. C. (Hc. 316, H. 322 a. H. 923.)
[5]) BOGGIANI (2), Fig. 50.
[6]) GRUBB, p. 74.
[7]) M. f. V. C. (17634, Collection FRIČ.)
[8]) M. f. V. C. (613 i).
[9]) G. M. BOLINDER.
[10]) LEHMANN-NITSCHE (1), Pl. 3, Fig. 4.
[11]) REISS und STÜBEL, Vol. 3, P. 82, fig. 4.
[12]) M. f. V. B. (V. A. 8900).
[13]) NORDENSKIÖLD, (3), S. 24. R. M. (06. I. 408.)
[14]) Fig. 215.
[15]) (1), fig. 1.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

or chest of the water carrier.[1] When the pitcher has been filled with water, its mouth is closed with a stopper of grass or leaves.

The cooking pots, which consist of burnt clay (figs. 125 and 126), are also used for roasting various vegetables. Pots of this kind from the Choroti are sometimes given wart-like decorations. These are either placed in rows some distance apart from each other (fig. 125) or in rows close together (fig. 126). This manner of ornamenting clay pots is of extreme antiquity in the New World, and occurs on grave finds right up through North America.[2] The little protuberances on the pot in fig. 125 have been produced in a different way to those on the handleless pot in fig. 126. On the case of the former, they consist of small clay pellets which have been stuck on the pot before burning, whilst the protuberances on the latter probably have been pressed up out of the wet clay by the potters fingers.

Fig. 125. Cooking and roasting pot of earthenware burnt black. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 150.

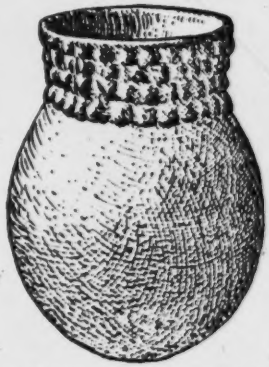

Fig. 126. Cooking and roasting pot of earthenware burnt black. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 10. 3. 54.

All pottery is made by women. The clay is mixed with powdered potsherds, then well kneaded and formed with the hands into rolls, as thick as a finger, with which the pot is built up.[3] When this has been completed as to its shape, its surface is polished by means of a mussel shell or a

[1] Water-drawing and carrying is exclusively a work for women.

[2] See, for example, Holmes (1), pl. XI, fig. g, and Moore (8), fig. 42.

[3] Cf. figs. 217 and p. 214. On the subject of Indian pottery-making; see for example Holmes (1), and Nordenskiöld (19).

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

323 [531] smooth wooden stick, and, if desired, the above mentioned wart-like ornaments are then put on. Painted clay vessels are not found among the Choroti.

415 531 For holding water, beer, and other fluids, the Choroti use not only clay vessels but also calabash bottles. Small calabash bottles (figs. 127 and 128) are used for keeping toilet articles, such as colour seeds, beads, and other things. Such articles are also kept in boxes of calabash (fig. 129). Flour is kept in large calabash boxes (fig. 130). Of calabash shell are also made bowls or dippers (fig. 131), and spoons (fig. 132).

Fig. 127. Calabash bottle with incised ornament. Choroti. Gran Chaco. Bolivia. 2/3. Rikom. 03. 3. 172.

Fig. 128. Calabash bottle inlaid with turquoise coloured glass beads. Choroti. Gran Chaco. Bolivia. 1/2. Rikom. 03. 3. 175.

Fig. 129. Calabash box, inlaid with glass beads, and with carved ornament. Choroti. Gran Chaco. Bolivia. 2/3. Rikom. 03. 3. 67.

Fig. 130. Calabash box with carved ornament. Choroti. Gran Chaco. Bolivia. 1/3. Rikom. 03. 3. 176.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

as graters. On the coast of Ecuador (J) they have found grating-boards (?) of baked clay with stones fastened in the clay[1]).

It is of great interest to see that in N.E. Bolivia we only find the most primitive form of manioc grating-boards.

b) Cooking utensils.

The Ashluslay and the Choroti cook their food in simple pots of baked clay. Of the tribes I have visited in my travels, the Chama and Tambopata-Guarayo Indians are the only ones that have no clay vessels. For the rest, very few S. American tribes have no cooking utensils of baked clay. They are the Botocudo and some other Gê's tribes, the tribes of Tierra del Fuego, and now also the Patagonians.

c) Wooden spits.

(See Chapter XIII).

d) Platter, etc.

The (1) Choroti and (2) Ashluslay eat off dishes of baked clay, or off calabash shells. The former, and probably also the latter, have wooden platters as well. The Ashluslay also have large wooden basins.

I have seen wooden bowl (Map 12) among the following tribes in addition to those named: (19) Aymara, (18) Quichua, (5) Chané (4) Chiriguano (6) Mataco, (22) Yuracáre, (23) Churápa and (80) among Indians on the Calilegua, Argentina.

They are also known from the (18) Quichua, Papallacta in Ecuador[2]) (10) Araucanians,[3]) (16) Guató[4]) (49) Araona[5]) (36) Ijca[6]) and the (68) Omagua (?)[7]).

[1]) Joyce, Pl. 6. fig. 2.
[2]) Uhle (1) Vol. 2. Pl. 17. fig. 18—19.
[3]) Latcham (1) p. 342.
[4]) Max Schmidt (3) p. 211.
[5]) Armentia p. 60.
[6]) Bolinder (4) p. 50.
[7]) M. f. V. L. (S. Am. 1350).

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Mataco SI7
Ashluslay SK5

picted from Pachacamac[1]). In my travels I have only seen it among the Mataco.

I am sorry I do not possess in my collections a loom with half-complete fabric with ornamental borders, nor a half-complete band in the Kelim technique. Since the »Arawak» loom is universally found in the Chaco, I think it more likely that the Choroti and Ashluslay originally learned the art of weaving from the Arawaks (Chané) than that it passed on to them from the mountain civilization. It is, however, certain that their weaving industry developed under the influence of the Mountain civilization.

Pottery.

All the tribes I have visited on my journeys possess earthenware vessels made by themselves, except the Cháma and the Tambopata-Guarayo, who are identical with or nearly related to them. PATER SCHMIDT[2]) mentions the following tribes as not having any pottery: — Kayapó, Botokudo, Ona, Yahgan, and Alikuluf. The Tehuelche no longer have any pottery, though they had formerly. With the exception of the last-mentioned it is, therefore, only the lowest tribes who are without pottery. The absence of pottery among the Tehuelche is due to their life being so bound up with that of the horse; fragile earthenware is unsuitable for an equestrian people.

The Chaco tribes here dealt with build up their earthenware vessels in layers out of clay ropes[3]). This method of shaping the vessels I have seen among the following tribes: — Choroti, Mataco, Ashluslay, Chiriguano, Chané, Quichua-Mestizos and Huari; and this is the usual method everywhere in S. America where the pottery is uninfluenced by white civilization. PATER SCHMIDT[4]) mentions this method from several tribes in different parts of S. America. The

[1]) (6), p. 7.
[2]) p. 1024.
[3]) See »Indianerleben», p. 122.
[4]) p. 1057.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

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vessels are polished with wooden tools, specially made for this purpose, and sometimes also with the tails of the Tolypeutine armadillo[1]).

The Chaco Indians make earthen vessels of a good many shapes (Fig. 65). Of these they have got one at least from the mountain civilization, viz., the waterpot. (Fig. 45). I have, however, already dealt with this in other connections (See above, page 146).

A good many of the earthen vessels of the Choroti and occasionally of the Ashluslay also are provided with handles (Fig. 65). The distribution of vessels of this kind indicates that the handle is an invention which the Choroti and Ashluslay have obtained from the Indians of the western area of civilization.

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I have found earthenware vessels with handles (Map 30[2]) at Sumaipata in the neighbourhood of Sta Cruz de la Sierra, at Caipipendi in the district of the Chiriguano Indians, at Calegua in N. Argentina, in the excavations on the border of Peru and Bolivia, in the San Francisco valley in N. Argentina, at Incallacta and in the Mizque valley between Cochabamba and Sta. Cruz de la Sierra, in the old dwelling-places on the upper Rio Pilcomayo, and at Covendo on the Rio Beni.

On the other hand handles are wanting on the vessels I found in mounds at Mojos, at Guarayos, and in the ancient dwelling and burial grounds on the Rio Guaporé and the Rio Machupo.

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In the following table we see which of the present-day Indian tribes visited by me have got handles on their earthenware vessels. The table also indicates which of these Indians paint their vessels and which of them employ finger-print ornamentation.

[1]) Tolypeutes conurus.

[2]) The shaded area as well as the numbers on the map show the distribution of the handle in S. America.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

A
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	Number on the map.	possess earthenware vessels	finger print ornamentation.	painted vessels.	handles on vessels.
Ashluslay	(2)	+	—	+[1]	+
Atsahuaca		+	—	—	—
Aymara	(19)	+		+	+
Cavina	(58)	+	—	+	—
Chacobo		+			
Cháma					
Chané	(5)	+	+	+	+
Chimane		+			
Chiriguano	(4)	+	+	+	+
Choroti	(1)	+	—	—	+
Guarayú (Mission)		+	—	—	—
Guarayú (Pauserna)		+	—	—	—
Huanyam		+	—	—	—
Hurri		+	—	—	—
Mataco	(6)	+	+	+[1]	+
Quichua	(18)	+	—	+	+
Siriono		+	—	—	—
Tambopata-Guarayo		—	—	—	—
Tapiete	(3)	+	—	+[1]	+
Toba	(7)	+	—	+[1]	+
Tsirakua		+	—	—	—
Yamiaca		+	—	—	—
Yuracáre	(22)	+	—	+	—

Handles on earthen vessels are found everywhere in N. Argentina in the district of the Diaguita[2]), in the (H) province of Buenos-Aires[3]), in San Juan[4]) and La Rioja[5]), in the (t)

[1]) painted only after burning.

[2]) Ambrosetti, Boman, Lafone Quevedo, Outes and other works.

[3]) Ameghino, Vol. I, p. 203, Pl. 7.

[4]) Debenedetti, (4), p 66, 102, 103 etc.

[5]) Debenedetti (5) Fig. 6 and 7.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

Valle del Rio Chubut[1]), in the (O) Rio Parana[2]), in the (N) upper Rio Parana[3]), in all the old Inca country[4]), also in Ecuador[5]), in S. Chili[6]), in Cundinamarca[7]), and Cauca[8]), and at Sta. Marta in Columbia[9]), on (P) Aruba island[10]) on the (S) island of Trinidad[11]) and at (R) Lago Tacarigua[12]).

Besides the above mentioned tribes we find, among present-day Indians earthen vessels provided with handles among the tribes of (48) N. W. Brazil[13]), the (54) Guahibo[14]), the Köggaba[15]) Motilones[16]) Goajiro[17]), the Arawaks[18]) on the coast of Guiana, the Araucanians[19]) and the (8) Lengua[20]).

In addition there are some tribes who have quite lost their primary civilization, e. g. the Mojo. The pottery in the archeological excavations at Mojos is, as already mentioned, without handles.

When ornamenting their earthen vessels the Choroti and Ashluslay never paint them before burning, but the latter sometimes do so afterwards. On some vessels there is plain

1) Outes y Bruch (5), fig. 115.
2) Torres (2), p. 88.
3) Mayntzhusen, p. 466. (rare).
4) Uhle, Seler, Reiss u. Stübel and other works.
5) Uhle, do.
6) Photo. G. M.
7) Uhle (1), Pl.
8) Uhle (1), Pl.
9) G. M. Bolinder's collection.
10) Josselin de Jong, Pl. 11, 13, 14 15, etc.
11) De Booy, Plate 5 a.
12) Marcano, p. 55. Pl. 12, Fig. 39. p. 57, Pl. 13. (Handle small and rare).
13) Koch-Grünberg (2), Vol. 2, p. 224.
14) Stradelli, p. 31.
15) Bolinder (4), p. 130.
16) Bolinder (3), p. 39.
17) Candelier, p. 267.
18) Ten Kate, p. 107 »Waar men aan kruiken, kommen enz. hengsels of ooren vindt, moet men aan Europeesch namaaksel denken.«
19) Latcham (1), p. 310.
20) Grubb, Pl. p. 74.

[Text continues on p. 217]

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

ornamention executed by means of the wooden tools used for polishing. Among the Choroti and Ashluslay I have seen no clear finger-print ornamentation. On the other hand this is not uncommon among the Mataco-Vejos, the Mataco who dwell in immediate contact with the Chané, who often embellish their pottery with such ornaments.

On the Choroti vessels and still more frequently on those of the Mataco the clay-coils themselves are sometimes retained as ornaments.

The distribution of finger-print ornamention (Map 40 Fig. 66) differs altogether from that of the handle. While the handle is an element of civilization which evidently came to the Chaco from the mountain civilization, finger-print ornamentation came from the east, probably from the Guarani Indians.

I have indicated in the table the tribes among whom I have seen this kind of ornamentation. In my archaeological excavations I have found[1]) such ornamentation at (ö) Tarupayu near the upper Rio Pilcomayo, at (o) Incahuasi between the Rio Parapiti and the Rio Grande in S. Bolivia, and in the province of (e) Sara not far from Sta. Cruz de la Sierra.

AMEGHINO[2]) mentions this ornamentation from the province of (H) Buenos-Aires, OUTES[3]) from (p) San Blas, not far from Bahia Blanca in Argentina.

MEYER[4]) from (q) Laguna in Sta. Catharina in S. Brazil, TORRES[5]) from (r) Entre Rios, KUNERT[6]) from (S) Rio Grande do Sul (Region de Cahy and Forromecco), and GRUBB[7]) from (f) the country of the Lengua Indians.

[1]) NORDENSKIÖLD (10), Figs 19—22.

[2]) Vol. I Pages 280—291, Pl. 6.

[3]) (4), p. 207, fig. 35.

[4]) P. 340.

[5]) (1), fig. 3.

[6]) P. 33.

[7]) GRUBB, p. 73. »Broken pieces of old pottery have been found bearing scorings, as if made by the pressure of the thumb, and are said to be the work of spirits.«

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

Ornamentation of this kind is found, too, on earthen vessels from (N) Alto Paraná[1]), the vicinity of Bompland, Missiones in N. Argentina[2]). KISSENBERTH'S[3]) discovery of this form of ornamentation on potsherds which he found near the Dominican mission (g) of Conceiçao do Araguaya is extremely interesting. They are probably relics of the migration of the Tapirapé Indians. These Indians are Guarani and were possibly driven from the coast to their present district owing to the slave raids of the Portuguese.

Occasionally pottery is found in other parts of S. America sporadically with fingerprint ornamentation on the rim of the vessel. Typical finger-print ornamentation, however, is only found in the parts indicated on the map.

The Ashluslay do not paint their pottery before but after burning. This may be due to their not having in their country the colouring materials requisite for painting before burning. I have not got painted pottery from the Choroti.

For colouring, the (2) Ashluslay use the resin of a tree, «palo santo».[4]) Besides these Indians and other nearly related Chaco tribes, the (7) Toba, (3) Tapiete, (8) Lengua[5]), (12) Mbayá[6]) and (11) Chamacoco[7]), I have only seen the (5) Chané use similar resin for the painting of their pottery, which painting, however, is done before burning. The latter sometimes resin the rim of a vessel after the burning, while it is still warm. There are very considerable areas of S. America where the art of painting pottery has not been understood, and is not understood to-day. In the first place the art was known to the tribes on the Andes (the shaded area on the map) as well as the Guarani tribes and the major-

[1]) KUNIKE, p. 158, fig. 96.
[2]) G. M. BACKMAN'S collection.
[3]) (2), p. 77, fig. 26.
[4]) Bulnesia Sarmienti.
[5]) GRUBB, p. 73.
[6]) COLINI, p. 314.
[7]) K. v. d STEINEN (4), p. 325.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 16. A man, in front of his hut. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[p. 34 is blank]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

(material for roofing huts), the Indians are apt to build their villages in the proximity of some grove, or forest, of palms (›palmar‹). As a case in instance, the Choroti village at Tatarenda was situated quite close to a palm grove, and not very far from a largish palm forest. It is of importance that algaroba trees should be growing in the neighbourhood, as the fruit of this tree plays a prominent part in the food arrangements of these Indians.

The huts are of a very primitive character, and are built in the following manner; With a digging-stick (fig. 27) of hard, heavy wood, a succession of holes is dug, or jabbed, in the ground, so as to form a circle with a diameter of 2 metres or upwards. In each of these holes is planted an unlopped, bent-grown branch, thick end downwards, so that the tips of the branch point towards the centre of the circle. By this means a cupola-shaped frame is formed (fig. 26). This frame is covered with a thick layer of palm leaves and grass (figs. 16, 25), unless palm leaves are difficult to obtain, when the hut will be covered with grass only, although huts thatched in this way have less rain resistance. But even the most carefully built Choroti huts are, however, poor enough dwellings which, in any heavy downpour of rain, are unable to keep those inside them from a wetting.

Fig. 18. A man holding a pestle in his hands. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

The huts have one, or even two, entrances, about one metre in height (figs. 16, 25), but huts of the largest size are sometimes provided with several entrances. A sort of porch, constructed of branches and grass, may occasionally be built out from the entrance. When several huts are close together, they may not unfrequently be connected with each other by means of covered passages, or tunnels, built similarly to the huts.

The latter do not contain many utensils. Ranged along the wall, bowls made of gourd shell, a few clay vessels and a wooden mortar, are generally seen. In prettily knitted net bags of spun caraguatá fibre,[1] the Choroti keep all manner of small articles, such as mussel-shell spoons,

[1] Caraguatá, or chahuar (chaguar), Bromélia serra, is, as I have already pointed out, especially common in the Chaco.

wooden sticks for fire-drilling, toilet articles, magic rattles, etc.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Fig. 25. Huts. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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Fig. 26. Hut frames made of tree branches. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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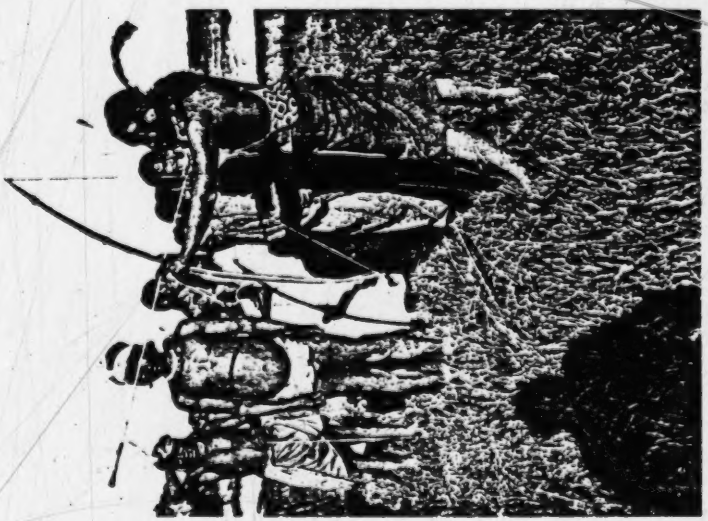

Fig. 96. A man aiming with a bird arrow. Churuti. Gran Chaco. Bolivia.
Photo. E. v. R.

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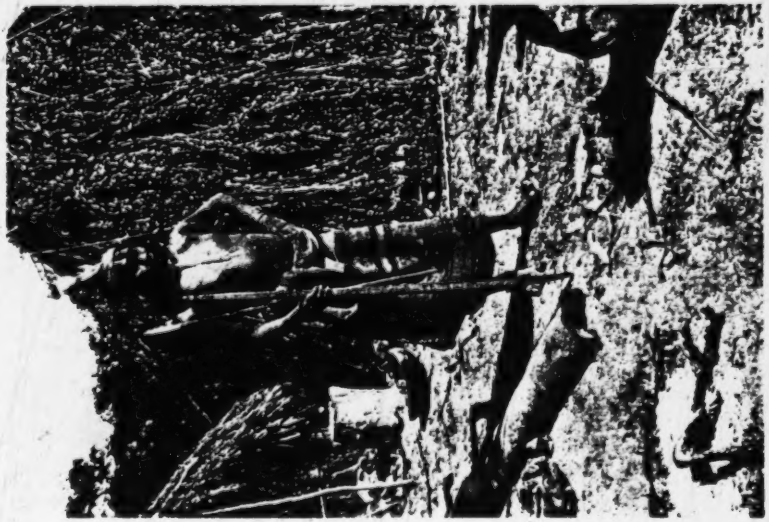

Fig. 95. A man with bow and arrow. Choroti. Gran Chaco. Bolivia.
Photo. E. v. R.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 180. Husband and wife, with baby. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[888 754 683] supernatural, of some kind or other, plays a leading part when children kill their aged parents.

622 Every village is ruled by a chief or headman. According to the observations of some investigators, these headmen do not nowadays possess any great power or authority, but among the Choroti whom I visited in 1901, the chief's authority was by no means inconsiderable. For example, it only needed my arranging with him that the Indians were to carry out a certain piece of work, and the work would be done. For the work performed by the Indians I paid the chief in goods, which he allotted among them as he himself thought fit, as it appeared. In war, each village [643] contingent is under the leadership of their headman. It was stated by the soldiers of Fort Crevaux that all Choroti used to be under a paramount chief, whose authority over all the other chiefs principally consisted in his being entitled to taking chief command in war. The office of village headman as a rule descends from father to son.

622 554 That certain Choroti chiefs used to be held in greater respect than others was made evident to us at a visit we made to a sugar plantation on our return journey to Salta. A large number of Choroti had just then

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

III.

Dwelling-places.

The Chaco Indians here dealt with, the Choroti and the Ashluslay, live in round or longish, low, brush-wood huts, built of branches planted in the ground and covered with grass or twigs. The entrance is quite narrow and occasionally built out with a passage or porch as a shelter from the wind. This type of hut is well known from many books of travels describing the Chaco.[1] Besides these huts, one can see among these Indians four-cornered cooking-sheds[2], and among the Ashluslay some huts of a similar kind, which are used at carousals and to lodge strangers (men's houses).

The Chaco hut makes a proverty-stricken show, and one is astonished that tribes which can produce among other things, beautifully ornamented textile fabrics and very pretty knitted work, should not have hit upon the idea of building better huts; even when these Indians work for the season in the Argentine sugar factories, they erect these primitive huts.

This type of hut has a very wide-spread distribution in the Chaco. Besides among the tribes mentioned, we find the same among the Mataco, the Tapiete and a few of the Toba Indians. HUNT[3] says characteristically of the huts of the

[1]) See, e. g. v. ROSEN (1) Pl. II, fig. 2, and NORDENSKIÖLD (8 B.), fig. 2 and Pl. 3.

[2]) NORDENSKIÖLD (8B), fig. 6.

[3]) p. 173.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK 6

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Choroti Indians outside their house.

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The open space in the middle of the Choroti village, with a drum placed to the left.

The woman in the middle has a leather strap tied round the chest as a sort of charm against evil spirits.

2: Karsten E-5 (1911-1913)1932 S17 Mataco .

Choroti

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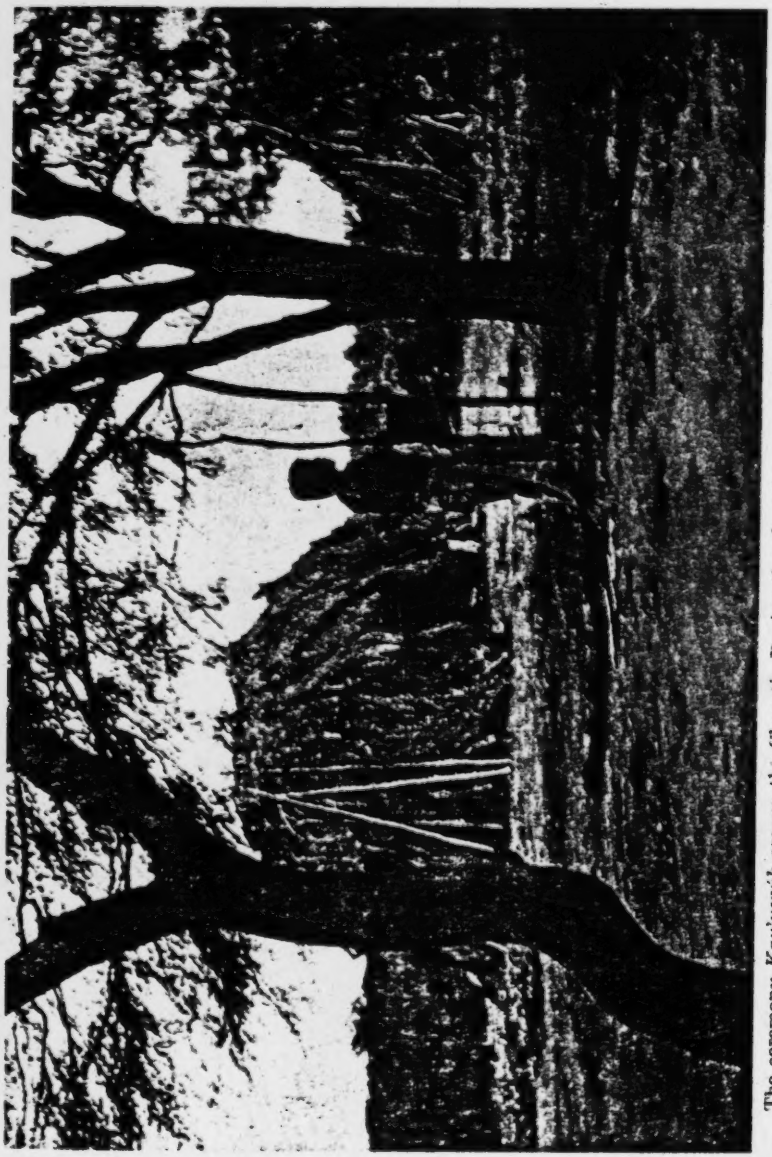

The ceremony *Kau'uqyik* among the Choroti. During the algaroba season the drum is beaten day and night with a view to hurrying on the ripening of the fruits.

352 [513] wooden sticks for fire-drilling, toilet articles, magic rattles etc. Contrary to the Chiriguano, the Choroti do not use bedsteads or hammocks, but sleep on the ground, with only an animal skin, or a woollen mantle between themselves and the ground.

[142 29]

Fig. 19. A man, with his daughters. Choroti. From the dry soil forest region between Caiza and Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

● 343 251 At the cooking-fires in front of the huts, the Choroti now and then erect square sheds, with flat, grass-covered roofs. These sheds are constructed like food-storing racks (fig. 28), and are used both as a protection from the sun and as sleeping places during hot nights According to Nordenskiöld, the Indians on the Pilcomayo use the roofs of these sheds for drying fish on.[1] I am of opinion that these sheds, originally, were only designed for the storing, drying, smoking or roasting of fish, and that, therefore, their use as shade-givers or sleeping-shelters is only

[1] Nordenskiöld (13), p. 36.

[text continues on p. 47]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Fig. 27. Wooden digging-stick (wood of Bulnesia sarmienti). The handle and the spade-like point are flat, the rest, of round section. Choroti, Gran Chaco, Bolivia. 1/1. Riksm. 10. 3. 83.

a secondary one.[1] In Central Africa I have seen Wemba 343
and Bisa men construct food-storing racks for smoking 251
food, or drying it by fire. These racks are built on exactly the same plan as the cooking-sheds of the Choroti, [324
although lower than the latter, and not covered with 412]
grass. That also the Indians of South America made use of drying or roasting racks, is evident from fig. 29, provided that this picture, reproduced from an account of travel in the 16th century,[2] actually is a faithful representation of an Indian roasting-rack.

Fig. 28. Frame of cooking-shed; also used as a food rack. Choroti, Gran Chaco, Bolivia. From Erland Nordenskiöld.

The roasting-rack, such as it is reproduced above, may conceivably be a development of the food-storing rack discussed by me in chapter VII (pp. 198, 199), and in the following way: Those usually fairly tall racks that are built for the protection of food against damage from wild or domestic animals, are, as a rule, particularly well adapted for drying fish, etc. When the weather is unfavourable to sun-drying, the idea would present itself of assisting the preserving process by making a fire under the rack, by means of which the food would dry more quickly, at the same time that, through the action of the smoke, it would keep longer from decomposition. By lessening the height of the rack, in the way shown in fig. 29, the effect of the fire would be increased so much that the food would quickly be cooked, and ready for immediate consumption.

When the Choroti quit a dwelling-site in order to 361
build their village elsewhere, they often burn their old

[1] Cfr. my theory as to the origin of pile-building construction, pp. 192–199.
[2] Schmidel (I), p. 29.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

had their dwellings far from any fishing water, I myself never saw these Indians engaging in fishing. As they had, however, brought with them their fishing gear (except the frameworks of their landing-nets), I succeeded in making a good collection of this kind of implement. 226

The Choroti fish with nets (using them as landing-nets), fish-hooks, and with bow and arrow. The last-mentioned fishing method, which, as far as I know, has only been observed by Moberg a Swede, is, however, only used during the latter part of the rainy season.[1]

The nets are either fastened so as to fill up the angle between two rigid poles, which are tied together by their lower ends (fig. 113), or between two supple rods, tied together at both ends (fig 114). The angle-set poles, and the rods, seem as a rule to be about 3 m in length. These fork poles and rods (dip-net frames) the Choroti had not troubled to bring with them to their dwelling site — far removed from any fishing water — in the neighbourhood of Tatarenda, and therefore my description of these implements is founded on two specimens preserved in the Gothenburg Museum, and on such photographs[2] and information as Nordenskiöld has kindly given me.[3]

When fishing, the Indians often split up into two parties, one of whom make a bar across the river with the nets that are stretched between poles (the barring-nets), which are then held so that the points of the fork rest on the bottom of the river. The other party of fishermen drives the fish towards the barring-nets, at the same time using their nets that are fixed between two rods (dip-nets) for catching fish.[4] These latter nets are used like large landing-nets, and, by means of the flexible rods, can be opened and closed. The Choroti have no water craft of any kind (not even rafts), but do their fishing swimming or wading. When fish is scarce, the Choroti block up the Pilcomayo with pole-built fences that, here and there, have openings in them. In front of these, the Indians sit on small platforms (figs. 114 and 115), and fish with dip-nets. When the weather is cold, or when fish is to be fried, fire is made on the platforms, which are isolated from the fire by means of a layer of river mud.[5] These 501 481] 343 226

[1] Nordenskiöld (11), pp. 60.
[2] Nordenskiöld (18), fig. 8, 11 ß, plate 14', and Karsten (9), the figure on p. 34.
[3] Letter dated 14. 7. 1921, Rockefeller collection of manuscripts, volume 1921, letter N.
[4] Nordenskiöld (18), p. 42.
[5] Nordenskiöld (18), p. 44.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6
Ashluslay SK5

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Fig. 113. Ashluslay fishermen with barring nets. Pilcomayo. Gran Chaco, Bolivia. Sketched from a photograph by Erl. Nordenskiöld.

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little water platforms are constructed in about the same way as the food-storing platforms, or cooking sheds, that the Choroti build on dry ground (see p. 38). The only difference is that the two horizontally placed sticks that support the platform (the roof) in the latter, are resting in natural forks formed by the top ends of the uprights (see fig. 28), whilst the two sticks that support the platforms (the floor) of the river structures rest against bindings which have been tied round two uprights driven in close together. This arrangement almost certainly aims at the possibility of raising or lowering the platform in accordance with the level of the river water. In all other respects there is very great resemblance between the platforms that are built in rivers (fig. 115) and the cooking sheds built on dry land (fig. 28). In chapter VII I have tried to show how pile structures on firm ground have inspired the idea of building similar structures in water (see pp. 192—199 and 38—47).

The Choroti are so much at home in the water that they are able, whilst swimming below the surface, to catch fish with their dip-nets.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 114. Pole-built fish fence across the Pilcomayo, with openings at intervals. On a platform in front of one of the openings a Choroti Indian is sitting, fishing with a dip-net. Gran Chaco, Bolivia. Sketched from a photograph by Erl. Nordenskiöld.

In figs. 116 and 117 is shown a bar net of caraguatá yarn. When I, by barter, acquired this net, for the reasons already given it was not mounted on its frame, but was kept rolled up, and with its mouth drawn together (see figure), in order to take up as little room as possible. The size of the net shows that it could be extended, in a triangular shape, between the arms — about 3 m long — of a fork (see fig. 113). The yarn of which the net is made is two-ply, and has a diameter of about 1.5 mm. The meshes are square, with sides of 4 cm.

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In my collection there are also nets with meshes whose sides are, respectively, 2.6 and 1.6 cm. But the Choroti have probably nets with still smaller meshes, for I have in my collection a mesh-spacer which is only 1.1 cm wide.[1] Nets that are as small-meshed as this, are suitable for catching bait for fishing with hook and line.

Fig. 115. Detail sketch of a platform of the kind seen in fig. 114. From Erl. Nordenskiöld.

The largest mesh-spacer in my collection is very nearly 4 cm wide (fig. 118), and would therefore have been used for the weaving of nets

[1] Riksm. 03. 3. 241.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

III.

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[1]) See, e. g. v. ROSEN (1) Pl. 11, fig. 2, and NORDENSKIÖLD (8 B.), fig. 2 and Pl. 3.

[2]) NORDENSKIÖLD (8B), fig. 6.

[3]) p. 173.

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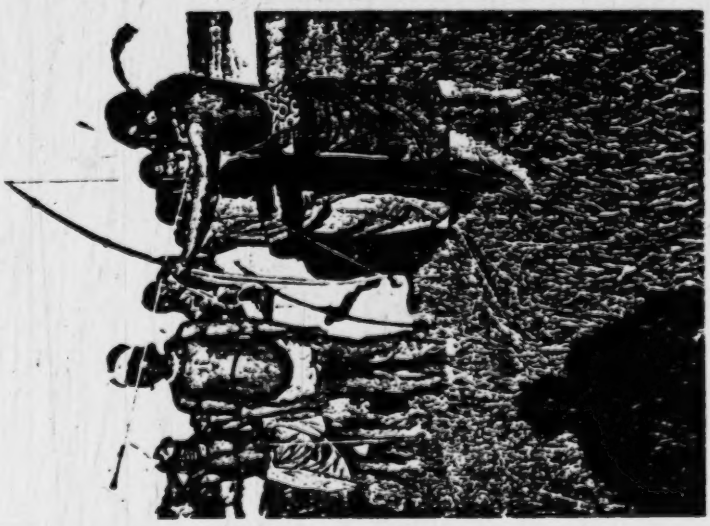

Fig. 96. A man aiming with a bird arrow. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[351
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Fig. 95. A man with bow and arrow. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[p. 92 is blank]

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[142 291 301 412]

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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[142 291]

Fig. 19. A man, with his daughters. Choroti. From the dry soil forest region between Caiza and Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

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[1] Nordenskiöld (13), p. 36.

[text continues on p. 47]

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

Guató.[1]) We find skin mats among the Toba, Tapiete, Mataco, Chané, Chiriguano, Yaro-Chaná,[2]) some Guarani tribes in Paraguay[3]) Charrúa,[4]) Caingang in Rio Grande do Sul[5]) Angaité[6]) Payaguá[7]) Guató[8]) Araucanians[9]) Patagonians[10]). and Fuegians.[11]) JACINTO DE CARVAJAL speaks of them among the Indians on the R. Apure[12]) in Columbia, and it is to be presumed that skins are also used by some other Indian tribes for lying on. In a Mosetene fairy-tale that I noted down in Covendo, the jaguar is spoken of as having skin mats in his hut. The narrator evidently wished to emphasise how poorly the jaguar's hut was furnished. The Mosetene themselves have mats woven out of palm-leaves.

I have counted the skin mats among the southerly cultural elements, although skins are also used in isolated cases as mats in other parts.

Seats, which are so widely used throughout the north of S. America, are not used by the Choroti and the Ashluslay.

[1]) (3) p. 231.
[2]) SEPP p. 51.
[3]) Ibid. p. 54.
[4]) AZARA (1) Vol. 2 p. 12.
[5]) TESCHAUER p. 23.
[6]) COMINGES p. 122.
[7]) AZARA (2) p. 361, 10 (3) p. 179.
[8]) MAX SCHMIDT (3), p. 179.
[9]) MEDINA p. 173.
[10]) OUTES (3) p. 257.
[11]) GALLARDO
[12]) p. 204.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XIII.

Fire-places and Accessories.

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The fire-places of the Indian tribes here dealt with consist of a few branches laid on the ground, pointing to the same centre, over which the food is roasted or cooked.

The babracot is unknown in the Chaco, as it is in the Andes, in Patagonia and in Tierra del Fuego. In the Chaco the *Wooden spit* is used exclusively. It is sometimes furcated. (Fig. 17)[1]). Of the Indian tribes visited by me the following exclusively used the spit (Map 7): (2) Ashluslay, (10) Aymara, (5) Chané (4) Chiriguano (1), Choroti, (6) Mataco (18) Quichua (3) Tapiete (7) Toba. The Mestizos in the Argentine also use the spit exclusively.

Fig. 17. Wooden spit. Ashluslay. G. M. (C. 407) 1/4.

The following tribes which I have visited are acquainted with the *babracot* Atsahuaca, Cavina, Chacobo, Chúma, Chimane, Guarayú (Mission); Guarayú (Pauserna), Huanyam, Huari, Tambopata-Guarayo, Yamiaca, Yuracáre.

The babracot and probably also the spit, are to be found among most of the tribes in Brazil, Guayana, Venezuela, and Columbia. The spit, but not the babracot, are stated to be used, in addition, by the (44) Charrua[2]) (07)

[1]) See also »Indianerleben», pl. 10.

[2]) Araujo, p. 121.

142 The skin colour in adult Choroti is brown, newly born children have light yellowish-brown skin, but it soon gets darker, so that even rather young children, figs. 21 and 22, seem to be of a very dark colour. The hair is lank, and the iris dark brown. From Lehmann-Nitsche's and my own anthropological observations I have compiled the following table.

The Choroti: some physical features.

[141]

Sex	Average height, cm	Shape of skull	Skin colour, von Luschan's scale	Hair colour, Fischer's scale	Iris, Martin's scale
Men.....	[1] 161.6 [2] 170.0	Dolichocephalic, predominantly	22, predominantly	4, predominantly	4, predominantly
Women ...	[3] 155.3 [4] 152.0	Dolichocephalic, predominantly	18, predominantly	4, predominantly	4, predominantly

145 [805] As the Choroti do not keep count of the age of their children, nor of their own, it is impossible to obtain, by direct questioning, from these Indians any information as to the relation of puberty to age in individuals. One of our Creole servants, who had lived a long time on the Chaco, has, however, told me that Indian children arrive early at physical [582] development (fig. 24), and that the girls are considered marriageable after their first menstruation, which, according to my informant, occurs at the age of ten to twelve. And, according to the same person's statement, the boys are ripe for marrying at the age of about fifteen. The blossoming-time of the women is very brief, and as they grow old they often become repulsively ugly. It is notable that the old women, as a rule, were thin of body, whilst elderly men often were inclined to stoutness.

[621] 361 The Choroti live together in villages. The selection of the village site depends primarily on the supply of water and food, and, in the case of cattle owning Indians, also on grazing conditions. Often the huts are built alongside shade-giving trees (fig. 25). The fan palm found in the [824] Chaco (Copernicia australis), (fig. 10,) being valuable to the Indians on account of its easily worked wood, its pith (used for food), and its leaves

[1] Acc. to Lehmann-Nitsche's measurements of 30 individuals.
[2] » » the Author's » » 10 »
[3] » » Lehmann-Nitsche's » » 10 »
[4] » » the Author's » » 13 »

[text continues on p. 37]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

(material for roofing huts), the Indians are apt to build their villages in the proximity of some grove, or forest, of palms (›palmar‹). As a case in instance, the Choroti village at Tatarenda was situated quite close to a palm grove, and not very far from a largish palm forest. It is of importance that algaroba trees should be growing in the neighbourhood, as the fruit of this tree plays a prominent part in the food arrangements of these Indians.

The huts are of a very primitive character, and are built in the following manner; With a digging-stick (fig. 27) of hard, heavy wood, a succession of holes is dug, or jabbed, in the ground, so as to form a circle with a diameter of 2 metres or upwards. In each of these holes is planted an unlopped, bent-grown branch, thick end downwards, so that the tips of the branch point towards the centre of the circle. By this means a cupola-shaped frame is formed (fig. 26). This frame is covered with a thick layer of palm leaves and grass (figs. 16, 25), unless palm leaves are difficult to obtain, when the hut will be covered with grass only, although huts thatched in this way have less rain resistance. But even the most carefully built Choroti huts are, however, poor enough dwellings which, in any heavy downpour of rain, are unable to keep those inside them from a wetting.

Fig. 18. A man holding a pestle in his hands. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

The huts have one, or even two, entrances, about one metre in height (figs. 16, 25), but huts of the largest size are sometimes provided with several entrances. A sort of porch, constructed of branches and grass, may occasionally be built out from the entrance. When several huts are close together, they may not unfrequently be connected with each other by means of covered passages, or tunnels, built similarly to the huts.

The latter do not contain many utensils. Ranged along the wall, bowls made of gourd shell, a few clay vessels and a wooden mortar, are generally seen. In prettily knitted net bags of spun caraguatá fibre,[1] the Choroti keep all manner of small articles, such as mussel-shell spoons,

[1] Caraguatá, or chahuar (chaguar), Bromelia serra, is, as I have already pointed out, especially common in the Chaco.

wooden sticks for fire-drilling, toilet articles, magic rattles, etc.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Fig. 27. Wooden digging-stick (wood of Bulnesia sarmienti). The handle and the spade-like point are flat, the rest, of round section. Choroti, Gran Chaco, Bolivia. 1/4. Riksm. 10. 3 84.

a secondary one.[1] In Central Africa I have seen Wemba and Bisa men construct food-storing racks for smoking food, or drying it by fire. These racks are built on exactly the same plan as the cooking-sheds of the Choroti, although lower than the latter, and not covered with grass. That also the Indians of South America made use of drying or roasting racks, is evident from fig. 29, provided that this picture, reproduced from an account of travel in the 16th century,[2] actually is a faithful representation of an Indian roasting-rack.

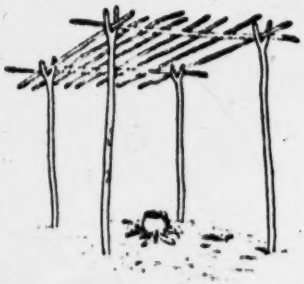

Fig. 28. Frame of cooking shed; also used as a food rack. Choroti, Gran Chaco, Bolivia. From Erland Nordenskiöld.

The roasting-rack, such as it is reproduced above, may conceivably be a development of the food-storing rack discussed by me in chapter VII (pp. 198, 199), and in the following way: Those usually fairly tall racks that are built for the protection of food against damage from wild or domestic animals, are, as a rule, particularly well adapted for drying fish, etc. When the weather is unfavourable to sun-drying, the idea would present itself of assisting the preserving process by making a fire under the rack, by means of which the food would dry more quickly, at the same time that, through the action of the smoke, it would keep longer from decomposition. By lessening the height of the rack, in the way shown in fig. 29, the effect of the fire would be increased so much that the food would quickly be cooked, and ready for immediate consumption.

When the Choroti quit a dwelling-site in order to build their village elsewhere, they often burn their old

[1] Cfr. my theory as to the origin of pile-building construction, pp. 193—199.
[2] Schmidel (1), p. 29.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

361 huts. With other Chaco tribes the same custom prevails. Thus, for instance, the Mataco Indians burnt their huts on the Pilcomayo when they had learnt from spies that I, with a few Bolivian soldiers, was marching in a direction towards their village. When I arrived at the site of the village, I found, instead of huts, only a number of smoking ash heaps. In times of epidemics, when there are many deaths, it is the Indian custom to burn, and abandon, their villages. It also happens that a village is burnt after having for the first time been visited by a white man.[1]

[1] Karsten (2), p. 30.

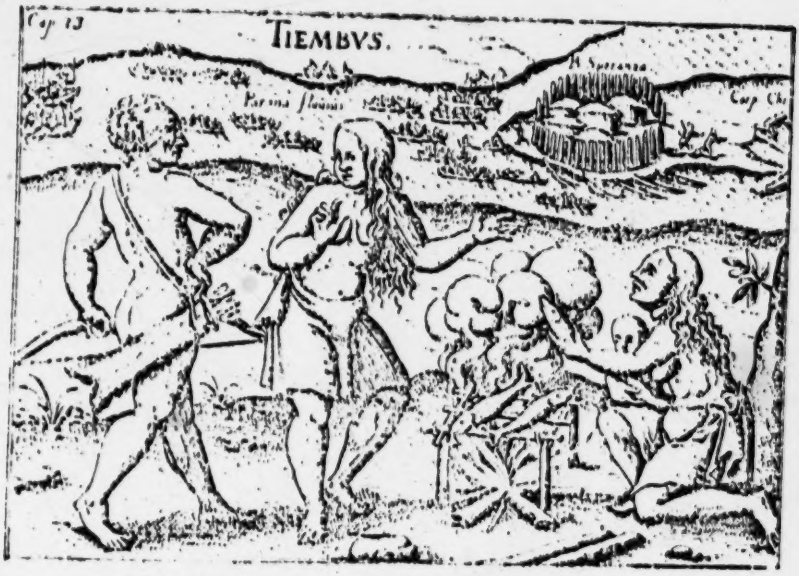

Fig. 29. Tiembus Indians, roasting fish on the Paraná river. From Schmidel.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6
Toba. 5112

tive fashion, and, according to Nordenskiöld and Karsten, such agriculture as the Choroti engage in, is still on a very inconsiderable scale. Nowadays, however, these Indians cultivate — although not to any great extent — the following plants, viz.: pumpkins, cucumbers, water melons, maize, beans, manioc, sweet potatoes, tobacco and cotton.[1] Their only agricultural implements consist of digging-sticks of hard, heavy wood, and a kind of paddle-like, wooden spades. A typical digging-stick is reproduced in fig. 27.

It is probable that the Choroti originally had no other domestic animals than dogs, and the only tame animals I personally saw among this tribe were dogs and fowls. Those of the Choroti Indians who are living in the neighbourhood of the Pilcomayo possess, beside the animals mentioned, also sheep, goats, cattle, horses and cats. Sheep-rearing has now come to be of great importance to the Indians, who use the wool as material for mantles, fillets, etc.

Fig. 121. Cord on which fish are strung by means of a large needle of hard, heavy wood. This kind of carrying-gear is very common among the Choroti. The specimen here reproduced originates, however, from the Toba (neighbours of the Choroti). Gran Chaco. Bolivia. S:s. Riksm. 03. 3. 766.

As mentioned, the Choroti are a nomadic people. Their changes of location may be due to various circumstances. When pasture is exhausted in one place, they must look about for another; they move on to more profitable fishing-waters, or wander into regions that are rich in game and wild, edible plants. But there may also be other, and quite different, reasons for the Choroti's leaving their old abodes. In epidemics, when deaths are plentiful, it happens that the Choroti abandon their villages, and this they may also occasionally do if they are apprehensive of visits from whites (see pp. 47 and 48). In a first-rate monograph, Dr. Ragnar Numelin has exhaustively analyzed the causes governing the nomadic instinct in primitive peoples. As re-

[1] Nordenskiöld (11), p. 29.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

361 166 gards the Choroti, he, on Karsten's authority, mentions the interesting fact that these Indians sometimes are compelled to make a change of dwelling-site only on account of the appearance of excessive swarms of noxious insects (principally locusts).[1]

484 464 It is only in later times that the Choroti to any greater extent have come in to work on white men's sugar plantations. These plantations are mostly situated in Argentine territory, and therefore the Indians often have to make journeys of several weeks, in going to, or returning from, their place of work. Such Indians as go to the plantations only work for a few months for the whites, and then return to their own locations, there to spend the rest of the year in the wilds of the Chaco. Whilst at the plantations, they live in Indian villages they build for themselves, and in many ways carry on their primitive life.

166 I will also mention two other reasons for migration; now, however, only seldom obtaining among the Choroti, viz., fear of other Indian tribes and of reprisals for misdeeds committed against the whites. Concerning the latter cause for migration, I have already mentioned that a part of the Choroti tribe disappeared into the interior of the Chaco, after having in some way transgressed against white people who had settled in their country.

439 The Choroti Indians also engage in trading, and their chief article of barter is dried fish. In the Pilcomayo they are able to catch more fish than are required for their own consumption, and they therefore dry the surplus and take it to other parts, inhabited by Chiriguano and Chané, where fish is less plentiful. These latter Indians buy the fish by giving in exchange maize, red colouring-stuff (for face-painting) and other articles. Nowadays the Choroti also obtain iron, clothing, and other wares, by trading with the whites at the sugar plantations.

The snail-shell spangles that have been described in the foregoing are an important article of trade in the Chaco. The Choroti, according to their own stating, obtain spangles — separate, as well as strung into ready-made necklaces — from tribes living in the eastern Chaco. On Rio Parapiti Nordenskiöld has seen spangles of this kind among the Tapiete Indians, who told him they had got them by barter from the Ashluslay, and the latter that they, in their turn, had obtained them

[1] Nuttelin (1), p. 35.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

273 has to take part if he wishes to keep on good terms with the Indians. — »Among the Ashluslay I have taken a hand in several large-scale drinking carousals, and among the Choroti in some smaller ones. It proved an interesting experience, but it required a great deal of fortitude to be able to go through with it. In most villages there is a special [361] place set apart for drinking. There the men begin to foregather about noon, each man bringing his sitting mat and his calabash bowl of a capacity of two to three litres. Huge calabashes of beer are brought by the women. Sometimes the beer is decanted into a large earthenware vessel, out of which it is served. At a festivity where old man Aslù was the host, algaroba beer was handed round to the guests in a genuine European night-chamber, of well-known shape. What lees or dregs there may be in the beer receptacle, the partakers simply fish out with their hands, and then strain between their filthy fingers.

[276]

[574 576]

Fig. 153. Tobacco pipe of bamboo. The figure shows the mouthpiece turned downwards. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 238.

»A guest, especially if he has the misfortune of being very popular, is very well treated. He is provided with a sitting mat and a calabash holding two or three litres. When he sits down, all wave to him with the flat of the hand, and he must make a similar response. That constitutes the greeting of welcome. After that, it is a matter of drinking, for here the motto is 'no heeltaps', and one must not be uncivil. When one has managed to get a litre down, without throwing it some more the palm-waving is done. The old men sitting next to one, draw their more or less dirty fingers across one's mouth. This is the height of friendliness. If, after all this, one has to run away for a moment, one must by no means forget to wave the hand to one's neighbours and say 'paa', for if not, one is exceedingly unmannerly. The worst of it is that one must come back, and hold out, right through the feast even, whilst one's hosts are drunk and yelling, making speeches, spitting in the festive bowl, and generally feeling themselves good and hearty. Without giving a wipe to the pipe-stem, one has [276] to smoke, turn and turn about, with dirty, slavering, old men.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

better part of an hour, and when I was allowed to put on my clothes again, my body was full of large, red, marks from the sucking. The two worthies entertained me during the whole doctoring process with a lively conversation which I did not understand. From the pantomimic show I could, however, gather that it was a consultation. For a fee I gave one of the physicians a shirt and the other a pair of tight-fitting drawers.»[1]

As mentioned before, in case of illness the Choroti try to back up the work of the medicine man by dancing; such dancing is then regarded as magically counteracting the influence of the spirit of the illness.[2] The spirit of the illness is by the Choroti called »mohsek ihitek», i. e., the arrow-shooting spirit, which, as I have pointed out in the foregoing, signifies that the Indians believe that the »mohsek» in question has the power of causing illness by arrow-shot. The belief that illnesses could be caused by »fairy-darts» is met with among a number of different peoples, and, as we know, was formerly common also in Sweden.

The Choroti also try to cure themselves of illnesses by internally taking medicines consisting of decoctions of herbs, etc. It is, nevertheless, possible that the Indians themselves regard these, which we consider natural, remedies as being magical.

When an epidemic disease causes many deaths in a Choroti village, it is the practice of the Indians to burn the huts and remove to another site. This they do, either from fear of the spirits of the dead,[3] or in order to dodge the attack of the spirit of the disease.[4]

On the death of her husband, a Choroti widow cuts off her hair and burns it, and paints her face black with soot. We may take it that these signs of mourning also are of magical import. As an instance of this, the Choroti say that widows cut off their hair so that it shall not be a means of their husbands' spirits molesting them.[5]

One evening when after a long day's shooting I arrived at the Choroti village situated near our camp at Tatarenda, I was met by the sound of monotonous singing, muffled drumming, and the noise of magic rattles.

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[1] Nordenskiöld (13), pp. 95 and 96.
[2] Karsten (1), p. 14.
[3] Karsten (3), p. 30.
[4] Cf. Karsten (1), pp. 32 and 33.
[5] »When I asked the Choroti why a widow cuts and destroys her hair, I received the answer that the dead husband, who wants his wife to follow him to the grave, is believed to attack her through the hair; in order to rid herself of this danger she shaves it off.» Karsten (4), p. 62.

/1 cont./

000 the Sociedad Cientifica del Paraguay. Having also visited
C the Churupí Indians at the mission near Lake Escalante, about
A 25 kilometers from the mission at Esteros, I continued my
M journey on September 5 as far as Linares, where I found a num-
114 ber of Mataco Indians, who in part lived in a town some seven
M kilometers from Linares and in part had come from the other
[361] side of the Pilcomayo River to Linares.

C /2/ On September 9 I left Linares and on the next day
A arrived in Guachalla, from where I visited the Churupí camp
114 /tolderia/ about seven kilometers away.
A
[361] On September 11 I left Guachalla for the fort of Cururenda,
C where I had the occasion to see the Chorote /Choroti/ Indians,
CI who were living in a camp some three kilometers from
114 Cururenda, as well as some Toba and Mataco, who came
CI from the other side of the Pilcomayo to Cururenda.
[361]

C On September 15 I continued my journey as far as Oruro,
T in the environs of which I visited the Tapieté. My escort,
114 Lieutenant Cabello, who knew these Indians well, took me to
T their two camps, one of which is 15 and the other 32 kilo-
[361] meters from Oruro.

C On September 19 I left Oruro, and passing through
114 Capirendá and Carandayty, in the company of Lieutenant
Díego Corvalan, I arrived in Machareti, where I remained
from September 21-25. Since Machareti is a Chiriguano
town, I had a good chance at this place and at the end of my
journey, to observe this interesting Indian tribe.

Beginning my return on September 25, I passed in succes-
sion through Capirendá, Carandayty, López de Filippis, and
Puerto Casado, arriving in Asunción on October 8.

C Thanks to the great help of the military authorities, it was
[122] possible for me to pass through large areas of the Paraguayan
Chaco during the relatively short time of two months, to get
acquainted with a large number of native tribes of the Chaco,
to take photographs of these tribes, and to make up vocabularies
000 of their different languages. Outside of the Toba, whom I met

2: Karsten E-5 (1911-1913)1932 S17 Mataco S17

Choroti SK6

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Choroti and Toba Indians is not so rich as I wished it to be, nor have I been able to realize my plan of returning later to Chaco for the sake of completing it. My next great expedition took me to the Indians of the Amazon territory. However, I think the new facts I have been able to gather relating to their general sociology, their customs and beliefs, magic dances, etc., form an important contribution to our knowledge of the intellectual culture of the Chaco Indians, so strangely neglected by earlier ethnographical travellers. In fact, the dances of the South American Indians have never before been the object of detailed studies. The Chaco culture has in many respects a character of its own, differing markedly, for instance, from the cultures peculiar to the tropical virgin forests in northern South America. Taken as a whole it is much poorer; neither the material nor the intellectual culture in these inhospitable regions has attained the same stage of development as in the regions better endowed by nature. Even the rites and ceremonies in which religious life finds expression among the Chaco Indians are comparatively few.

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The Choroti are split up into three minor tribes which are settled in different parts of the territory occupied by these Indians. One of these sub-tribes lives on the left bank of the Pilcomayo just in latitude 22° S. and a few leagues to the north of it. Their chief at the time when I lived among them was Toula. A second sub-tribe lives about ten leagues east of them in the interior of the country. In March 1912 I undertook an expedition to these Indians, who had never before been visited by a European. Two Choroti Indians accompanied me as guides, and without them it would have been impossible to find one's way through this maze of shrublike forest land, broken here and there by small open plains. Whereas the country adjacent to the great water source Pilcomayo is fairly fertile, the soil in the interior is too dry and sandy to be suitable for cultivation. Agriculture is practised by the Choroti of the interior on a still more modest scale than by the river Indians, and since they are poor hunters their life must be extremely hard at those periods of the year when there are no wild fruits. These Choroti, like the rest, live in small communities and their total number does not exceed a few hundreds. Their chief at that time was a comparatively young man called Anempā

The third and largest Choroti tribe is found within a few leagues of Fortín Guachalla, the Bolivian military settlement mentioned before. These Indians only live on the banks of the river during the dry season, when the scarcity of water renders life in the interior impossible. The

2: Karsten E-5 (1911-1913)1932 S17 Mataco

Choroti SK6

necessity of fishing also at that time compels them to stay near the river. 614
But as soon as the rainy season sets in and the algaroba, tusca, and other 361
fruits begin to ripen, the Indians take up their abode in the forest close by some small lagoon or a rare water-hole several leagues from the river, spending most of their »summer» time in drinking algaroba beer, feasting, and dancing. The Indians of the Guachalla region form the main bulk of the Choroti tribe and number about a thousand individuals. Their [648]
immediate neighbours in the south are the Ashluslay, to whom the Choroti are closely related in their culture. There is much communication between the two tribes and intermarriage is frequent. Thus the chief of the Choroti, the old Ātamo, was on his father's side of Ashluslay descent, but since [611]
mother-right prevails among the Chaco Indians, he had become a member of the Choroti tribe.

There seems to be a certain antagonism between the different Choroti 619
tribes, in consequence of which they have very little intercourse with one 184
another. I particularly noticed such an antagonism between those Choroti who live on the river and those living in the interior. It would have been impossible for me to get a guide among the people of the chief Toula to accompany me to Anempä's tribe. Since to these Indians, who in general live to a great extent by fishing, the possession of the river is of great importance, I suppose it is originally due to this enmity that some Choroti Indians have settled in the inhospitable regions in the interior where they are found to-day. These latter even speak a somewhat differ- [197]
ent dialect of the Choroti language. Thus, one of the commonest words in the language, the word for 'house', is in the dialect of the river Indians *uk*. in the dialect of the inland Indians again *sáuo*.

The Choroti living on the river call the Choroti tribe inhabiting the interior of the Chaco *Asówa*.

The total number of the Choroti I estimate at about 2,000 or a [161]
little more.[1]) The surrounding tribes are much larger. Of these I have 648
already mentioned the southern neighbours of the Choroti, the Ashluslay, whom the Choroti call *Ahle*. Their neighbours in the north are the Tobas, whom they call *Johlōki*, and another Chaco tribe, the Tapiete, whom they call *Ohuénik*. Their neighbours in the west again are the Mataco, whom the Choroti call *Hotenúk*. They have dealings with all these tribes, although at times they have been at war with them, or at

[1]) Consequently, when Nordenskiöld estimates the Choroti at 4,000 individuals, this is a great exaggeration.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI12
Choroti SK6

M 342 against rain and wind. In these huts the Chaco Indian spends most of his time, sitting or lying on the ground or on the goat or sheep skin which forms his most important personal property. In the daytime, however, if the weather is fine, he prefers to stay outside the house engaged in various occupations or in eating or drinking, and in the summer time when no rain is falling and the temperature is high, he frequently even passes the night in the open air.

M T 342 177 Whereas primitive huts of this type are still customary among the Pilagá and other Argentine Tobas as well as among distant Mataco tribes, the Mataco and Tobas on the Bolivian side nowadays make houses of the same form as the whites, constructed of beams or balks with walls of cane and roofs of twigs and grass. Still these houses are so badly built that it is no rare thing to see a passing whirlwind sweep off the roofs and damage the walls.

C M 361 A Choroti or a Mataco village consists of six to twelve huts, generally arranged in a circle round an open space which serves as a field for games and as a tethering place for the small flocks of sheep and goats possessed by the Indians. In the middle of this space there is usually a shady algaroba tree under which the men of the village assemble for deliberations and where the drinking-bouts take place. In building their settlements the Indians first of all make sure of the existence of water in the neighbourhood, be it the river Pilcomayo itself or one of those insignificant pools which are found here and there in the interior of the Chaco; secondly, the place must offer the necessary pasture for their flocks; and thirdly, the Indians always settle in the vicinity of a forest where they can find plenty of the wild fruits on which they to a great extent subsist, and the trees of which offer some protection against the burning rays of the sun during the hottest hours of the day. Further, being anti-social and shy, the Indians preferably chose for their settlements a place hidden away from the main track. Seldom or never are they found close to the banks of a river: generally one has to travel one or a few miles into the interior to find their villages.

C M T 361 The villages of the Tobas and the Ashluslay are generally larger than those of the Choroti and the Mataco because the tribes are larger, but they are arranged on the same principles. All Chaco tribes live in village communities — this is a feature which differentiates these tribes from those of the tropical virgin forests. The vast pampas regions, of course, favour the rise of larger societies, whereas in the great virgin forests the different families necessarily live scattered.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

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Choroti Indians outside their house.

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The open space in the middle of the Choroti village, with a drum placed to the left.

The woman in the middle has a leather strap tied round the chest as a sort of charm against evil spirits.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

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Preparations being made for the great drinking-feast among the Choroti.
A goat's hide is fixed in the ground so as to form a vessel,
in which the beer is brewed.

000

Choroti Indians assembled for a drinking-feast under a shady algaroba tree.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6
Mataco SI7

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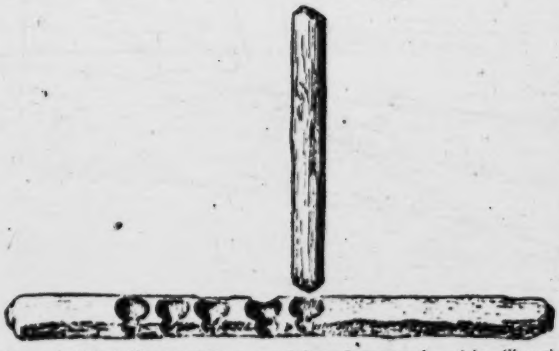

Fig. 148. Fire-drilling implement, consisting of two wooden sticks. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 193.

For scraping and polishing wooden objects, pieces of mussel-shell are used. Formerly, when the Choroti could not obtain iron, all woodwork was produced exclusively by means of fire and mussel-shells. In shaping a piece of wood, the parts that were to come away were burnt in the fire, and the charred parts then scraped off with a sharp-edged piece of mussel-shell.

Nordenskiöld mentions that the Choroti, in the same way as other Chaco tribes, use saws made of hard wood with which they, among other things, saw off the stem and leaves of the, to the Indians so important, caraguatá plant,[1] after having grubbed it up with a fork-like digging stick.

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[412]

Fig. 149. Stems of a liana (Asclepiadaceæ), which forms the material of which fire-drilling implements of the Choroti generally are made. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 196.

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Awls for working purposes are made of bone (fig. 147). Bone awls are also used for tattooing (see p. 75, 78), magical blood-letting (see pp. 63 and 64), and as weapons of offence (see p. 101).

Like other Chaco tribes, the Choroti produce fire by drilling. Their fire-kindling implement consists of two round-sectioned, dry sticks of wood (fig 148), usually obtained from a species of liana (of the Asclepiadaceæ), fig. 149. One stick (the female one), which is thicker, and usually longer, than the other one (the male stick), has one or more bowl-shaped indentations, at

Fig. 150. Tail of armadillo, used as a tinder box. Mataco. Gran Chaco. Argentina. Exactly similar tinder boxes are used by the Choroti. 2/3. Riksm. 03. 3. 572.

[1] Nordenskiöld (11), pp. 65 and 66, also (12), pp. 110 and 111.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 151. A Chofoti man producing fire by drilling. Gran Chaco. Bolivia. Photo. E. v. R.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

the edge of which a groove has been made (see fig. 148). These indentations are of a diameter roughly corresponding to that of the male stick. 372

When about to produce fire by drilling, a Choroti first pulls the head out of one of his arrows, and fits in its place the male fire-stick into the arrow-head hole of the arrow shaft. Then he spreads on the ground a thick, dry leaf, or a piece of skin or cloth. On this underlay he places the female stick, indentations upwards. In front of one of the indentations he puts a pinch or so of tinder consisting of charred caraguatá fibres, which he takes out of a tinder box which may be the tip of a deer antler or the scaly tail skin of an armadillo, fig. 150. He then sits down on the ground, in a squatting position, gets a firm pressure with his left foot on the female stick, carefully places the male stick, that is fixed in the arrow-shaft, into one of the indentations in the other stick, and twirls the arrow-shaft vigorously between his palms (see fig. 151). He starts the twirling at the upper end of the shaft, but as he, at the same time, exercises a downward pressure, his hands by degrees slide groundwards, and therefore he has, with a lightning-quick movement, to shift his hands, now and again, to the top.

The friction between the male and the female stick grinds the wood into a fine powder, which very soon begins to smoulder, as will be noticed from the smoke then rising from the drill hole. The glowing wood powder makes its way along the groove at the edge of the hole and on to the tinder, which also soon begins to glow. Dry grass is put on top of the tinder, and this is blown on until the grass catches fire.

This method of producing fire undoubtedly sounds very laborious, but it is remarkable how quickly the Choroti are able to kindle a flame, if only the sticks, tinder and grass are thoroughly dry. Once I have seen a Choroti drill fire in 30 seconds, and on many occasions I have witnessed how South American, as well as African, natives succeeded in producing fire in less than one minute by drilling.[1]

If the weather is damp, or if the fire-kindling implements are not quite dry, it is of course fairly difficult to drill for fire. Then the best plan is to have an assistant who begins the twirling at the top end of the arrow-shaft as soon as one's own hands have slid down towards the ground. When the hands of the helper are at the low position, one starts again

[1] Cf. von Rosen (4), pp. 241–245, plate 75.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

372 at the top, and by thus taking it by turns, the male stick is kept in continuous motion, until the wood powder begins to glow.

It is the work of the men to kindle the fire by drilling, but the women are charged with the responsibility of seeing that it does not go out unnecessarily. In order to keep cinders glowing during the night, or at other times when a flame on the hearth is not required, the women place on top of the fire dry, decayed tree stumps, which they cover with ashes, by means of which the stumps keep smouldering for a very long time. It is then easy, when required, to produce a flame by blowing [415] on, or fanning, the cinders. The fire-fan consists of feathers. Fig. 152 shows a young Choroti girl whilst carrying out her vestal duty of preserving a fire.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

372
516
415
142
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301

Fig. 152. A Choroti girl who has put decayed tree stumps on top of the fire in order to preserve it until again needed. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[p. 134 is blank]

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XII.

Fire-making Apparatuses.

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The method of obtaining fire in the Gran Chaco still consists of drilling with two rods. However, the use of matches, or flint and steel, has obtained a fairly wide spread, thanks to communication with the whites. Cow horns and the tail of the armadillo are used as tinder boxes. Caraguatá bark is used as tinder.

Wooden fire-sticks are widely distributed in S. America. Two kinds may be distinguished. One is so constructed that the powdered wood falls along a groove at the side of the fire-stick onto the tinder. With the other, fire is obtained by drilling through a thin piece of bamboo. In this case the drilling is usually performed with the shaft of an arrow in an arrow-head. I have observed the former kind among the Choroti, Ashluslay, Toba, Mataco, Tapiete, Chiriguano, and Huanyam. It is known almost throughout S. America with the exception of Tierra del Fuego. The latter kind I have seen among the Yuracáre, Chacobo and Guarayú.

It is of some interest to note that the Choroti and Ashluslay in making fire place the drilling-rod in the shaft of an arrow. It this way they can take quite short rods with them on their hunting excursions and other outings.[1])

[1]) See v. Rosen (1) Pl. 13.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay

In the Chaco *fire-fans* of feathers are used. In S. America we can distinguish between a western district with feather fire-fans (Map 9) and a northern and eastern with firefans of plaited palm leaves.

I have seen feather fire-fans among the following tribes: (2) Ashluslay, (1) Choroti, (6) Mataco), (3) Tapiete, (7) Toba, (22) Yuracáre and (32) Atsahuaca,[1]); and palm-leaf fire-fans among the Cavina, Chacobo, Chané, Chimane, Chiriguano, Churápa, Guarayú (Mission) Guarayú (Pauserna), Huanyam, Itonama and Siriono.

As far as I have seen, the Aymara and Quichua do not use fire-fans specially made for this purpose. Nor do the Tierra del Fuegians. I have not found any such implements among the Cháma, either. Among the Tambopata-Guarayo, who are closely related to them or indentical with them, I only found a specimen of a small, round fire-fan plaited out of fibre, very different from the fire-fans found among other tribes[2]).

According to PATER SCHMIDT[3]), who has collected some material concerning the distribution of different kinds of fire-fans in S. America, the following tribes have feather fans: (34) Jivaro, (33) Campa, Tšantšamayo[4]) Cokama[5]) (68) Omagua and (86) Yahua. To these, besides the tribes already mentioned, I can add the (12) Mbayá[6]) and the Indians of the upper R. Marañon,[6]) and furthermore grave finds from (A) Pachacamac, Peruvian coast[7]). Fire-fans of

[1]) NORDENSKIÖLD (2), p. 30.

[2]) NORDENSKIÖLD (2), fig. 31.

[3]) p. 1083.

[4]) Not given on the map.

[5]) SÁNCHEZ LABRADOR; Vol. 1. p. 213.

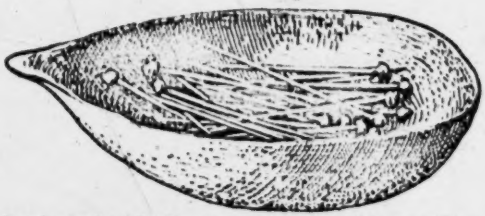
[6]) OVIEDO Y VALDÉS following GASPAR DE CARVAJAL, Vol. 4, p. 550. Not given on the map, as CARVAJAL does not indicate the tribes among which he has seen these fire-fans, and I have better located references to the same district.

[7]) SQUIER, p. 91.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

304 pattern with the cactus needles, or bone awl, until beads of blood appear, when the soot-mingled saliva is rubbed into the punctures. After healing, the tattoo marks assume a bluish colour.

302 At dances, lovers' meetings, and other important occasions, men and women paint their faces (figs. 62, 67—70 and 74—76). Face-painting may be done either in red (figs. 67—68 and 74—76) or in black (fig.



[415 439]

Fig. 77. Small calabash bowl containing cactus spines for tattooing. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 87.

Fig. 78. Red paint, ready prepared for face-painting. This lump of paint, which is wrapped in a sheath of palm leaf, may possibly have reached the Choroti by barter from the Chiriguano. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 104.

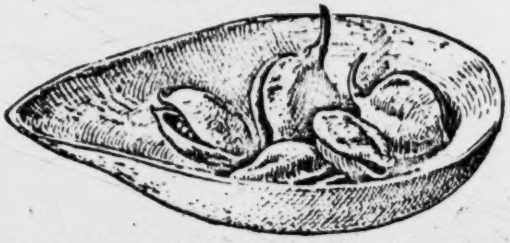


Fig. 79. Small calabash bowl containing fruits of Bixa orellana. From the seeds of these fruits colour is prepared for face-painting. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 102.

Fig. 80. Miniature bowl of wood, holding colour seeds. The bowl and the seeds have possibly been obtained by the Choroti through barter with the Chiriguano. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 180.

69), or in both red and black (fig. 70). Painting the face in red is commonest. The black paint consists of soot and saliva, whilst the red colour (fig. 78) is prepared from seeds of Bixa Orellana (fig. 79). These seeds are usually obtained by barter from the Chiriguano, and are carefully kept by the Choroti in small calabashes. I have also seen miniature wooden bowls (fig. 80) used as receptacles for these colouring seeds after they have been taken out of the follicle.[1] The soot is usually kept in a

[386 439]

[114]

[1] Owing to a mistake having occurred as to the identity of seeds, in my first treatise on the Choroti I have erroneously stated that the red paint used in face-painting is made from the seeds of Caesalpina melanocarpa.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

Ornamentation of this kind is found, too, on earthen vessels from (N) Alto Parana[1]), the vicinity of Bompland, Missiones in N. Argentina[2]). KISSENBERTH's[3]) discovery of this form of ornamentation on potsherds which he found near the Dominican mission (g) of Conceiçao do Araguaya is extremely interesting. They are probably relics of the migration of the Tapirapé Indians. These Indians are Guarani and were possibly driven from the coast to their present district owing to the slave raids of the Portuguese.

Occasionally pottery is found in other parts of S. America sporadically with fingerprint ornamentation on the rim of the vessel. Typical finger-print ornamentation, however, is only found in the parts indicated on the map.

The Ashluslay do not paint their pottery before but after burning. This may be due to their not having in their country the colouring materials requisite for painting before burning. I have not got painted pottery from the Choroti.

For colouring, the (2) Ashluslay use the resin of a tree, «palo santo».[4]) Besides these Indians and other nearly related Chaco tribes, the (7) Toba, (3) Tapiete, (8) Lengua[5]), (12) Mbayá[6]) and (11) Chamacoco[7]), I have only seen the (5) Chané use similar resin for the painting of their pottery, which painting, however, is done before burning. The latter sometimes resin the rim of a vessel after the burning, while it is still warm. There are very considerable areas of S. America where the art of painting pottery has not been understood, and is not understood to-day. In the first place the art was known to the tribes on the Andes (the shaded area on the map) as well as the Guarani tribes and the major-

[1]) KUNIKE, p. 158, fig. 90.
[2]) G. M. BACKMAN'S collection.
[3]) (2), p. 77, fig. 20.
[4]) Bulnesia Sarmienti.
[5]) GRUBB, p. 73.
[6]) COLINI, p. 314.
[7]) K. v. d STEINEN (4), p. 345.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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401
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Fig. 151. A Choroti man producing fire by drilling. Gran Chaco. Bolivia. Photo. E. v. R.

[p. 130 is blank]

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

A C 321 401 The Choroti and Ashluslay understand how to bore through teeth and mussel-shells. For this purpose they now use drills, made of darning-needles provided with a handle, which they obtain from the whites. The art of drilling holes in bone must be very ancient in S. America, being certainly known to every Indian tribe. The Tierra del Fuegians, however, seem not to possess necklaces of drilled teeth.

The carving and ornamentation of calabashes.

A C 415 322 Calabashes are extensively used in the whole of tropical S. America. They are lacking only in the extreme south of the continent and among some Gês-tribes who are quite uncivilized. Even up on the Andes the Indians often have calabashes which they get from the valleys on the eastern slopes of these mountains. Calabashes have been found in old excavations in the Puna de Jujuy[1]) where they cannot be cultivated. During his archaeological excavations at Calama in Puna de Atacama UHLE[2]) found numerous calabashes. He believes that the Indians there received them from Argentina.

The Choroti and Ashluslay have no tree calabashes, but use the fruit of a cucurbitaceæ which they cultivate. From these they make boxes, large bowls, etc.

Fig. 67. Calabash box with lid. R. M. (A. 1304). 1/4.

They often provide these boxes with lids which are not infrequently carved in the shape of a star.. They are made in the manner described by SÁNCHEZ LABRADOR[3]), speaking of

[1]) LEHMAN-NITSCHE (1).
[2]) (3), p. 109.
[3]) Vol. 1, p. 271.

[text continues on p. 224]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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342
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302

Fig. 16. A man, in front of his hut. Choroti, Gran Chaco, Bolivia. Photo. E. v. R.

[p. 34 is blank]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 17. A man, with frontlet of birdskin. Choroti. Tatarenda camp. Gran Chaco. Bolivia. Photo. E. v. R.

[p. 36 is blank]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

142
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301
411

Fig. 30. Men and women. Back row (8 individuals): men and youths. Front row (4 individuals): women. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

CHAPTER II.

The Choroti (2). Dress and ornaments.

Men's dress. Garments of protection against arrows, fish-bites and thorny plants. Hair-dressing. Frontlets. Hair-nets. Head ornaments of feathers, etc. Ear-lobe discs. The ear-boring custom. Necklaces. Armlets. Anklets. Finger rings. Dress and ornaments of the women. Tattooing. Painting of the face. Cutting the hair short. Pulling out of hairs. Toilet articles and their receptacles. Lack of cleanliness. Phthiriophagy.

291 On account of the warm climate of the Chaco, the Choroti do not require much in the way of dress. The smaller children are always completely naked (fig. 23), and when the men are engaged in any harder kind of work, they then usually only wear a woollen apron, passed between the legs and fastened in front and behind to a string made of caraguatá fibre or wool, tied round the waist (figs. 16, 18 and 30). Occasionally they fasten pieces of cloth, of different sizes, round the waist without tucking them between the legs (fig. 30). I have also seen Choroti men wearing broad, fringed, leather belts (fig. 31), but these skirt-like garments seemed to be of rather rare

[p. 49]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

as well as the Chaco tribes of the Guaikurú group, like the Choroti, wear these garments as war shirts.[1] In all the tribes just referred to (and the Ashluslay and Mataco as well), such shirts are worn exclusively by the men. The Caraguatá shirt here reproduced is knitted very tightly and closely (fig. 37), and, although its length is only 56 cm, exclusive of the shoulder straps, it weighs as much as 1.4 kg. The stripes that are worked in by way of ornamentation, have been formed by using string dyed black, and string dyed brown, alternately, in knitting. The parts that are between the stripes consist of undyed fibre. At the bottom edge of the shirt, small pieces of red and yellowish brown cloth have been tacked on; these originate from the whites.

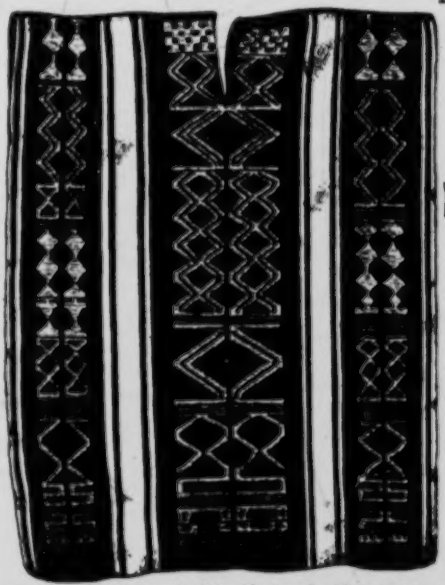


Fig. 35. Child's poncho (a boy's) of wool, with woven ornaments. Ground colour brownish-red; ornament yellowish-grey. Choroti (probably manufactured among some other tribe). Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 4.

These mail shirts of caraguatá-fibre string are exceedingly well manufactured, and undoubtedly form a good protection against the Chaco Indians' arrows, which are usually wooden-pointed. Arrows with rod-shaped, iron wire points, or with leaf-like, edged, iron heads, on the other hand, would probably pierce even the thickest and most closely knitted caraguatá shirt. The shoulder straps in these mail shirts are knitted considerably thinner and less closely than the rest of the shirt, and this is only natural, as the function of the straps is to suspend the shirt, and not to give protection against arrows. Besides, they could only be hit by arrows dipping at an angle from above.

[1] Krickeberg (1), p. 131.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

CHAPTER III.

The Choroti (3). Modes of subsistence.

Their various industries. Hunting. Bows. Arrows. Game-stalking. Game-driving. Decoying game by imitative calls. Tracking. Snares. War weapons. Clubs. Knuckle-dusters. Bone daggers. Knives made of cane. Mail shirts. Methods of warfare. Incendiary arrows. Ambuscades. Preparing for war. Scalping. Torture. Causes of war. Fishing. Nets. Driving fish. Blocking up fishing-water. Swimming and wading, in fishing. Fish fences. Pile-buildings used in fishing. Mesh-spacers. Fish-hooks and lines. Fish clubs. Transportation of fish. Dangers in fishing. Gathering of wild food plants. Implements used in gathering wild plants. Agriculture. Cultivated plants. Agricultural implements. Cattle-rearing. Domestic animals. Nomadic life. Trading.

The Choroti subsist on hunting, fishing, the gathering of wild, edible plants, and, to some small extent, also on a very primitive form of agriculture, and by trading with their neighbours.[1]

Hunting of game is mainly done with bows and arrows, and snares. The pellet-bow and the sling are met with among the Choroti, but are only used as toys.[2]

The collection of Choroti objects that I presented to the Riksmuseum included 14 bows, only 11 of which are now to be found. They form the material upon which the following description of Choroti bows is founded.

The bow staves consist of some kind of wood which is hard, resilient and usually free from knots. Probably quebracho (Schinopsis lorenzii) and palo mataco (Achatocarpus praecox) are the woods most frequently used as bow stave material. The bows of the Choroti (figs. 90 and 91) are better made than those of the Chiriguano, but are not of such good workmanship as the bows that I have seen among the Toba on the upper Pilcomayo.

[1] The description I am here giving of the Choroti refers, unless otherwise stated, to this tribe's mode of living at the time my observations were made (1901). Since then, many changes have come into the Chaco Indians' mode of living.

[2] Nordenskiöld (12), p. 48.

[p. 85]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Fig. 90. Riksm. 03. 3. 245.

Fig. 91. Riksm. 03. 3. 250.

Bows. Choroti, Gran Chaco, Bolivia. 1/8. In shooting, the bows are held in the position shown in the figures, i. e., with the part of the stave downwards, on which the string is wound.

Among the Choroti, as among their neighbouring tribes with the exception of the Chiriguano, the bow staves are sometimes made with a bend at the ends towards the string, these bends having been produced *before* the stringing of the bow (see fig. 91). How the bends are effected among the Choroti I cannot say, but it is probable that they, like the Lengua, for this purpose use fire.[1] According to Grubb, the Lengua shape the staves also with axe or knife so the stave ends assume the bent shape required. This can, of course, only be done by making the ends strongly tapering, as then they are more easily bent. The direct carving or cutting out of a bow stave with bent ends from a piece of woods is certainly possible, but to my thinking the stave would break at the very first attempt at stringing the bow, because in such a case the grain of the wood would not be following the bend of the stave.

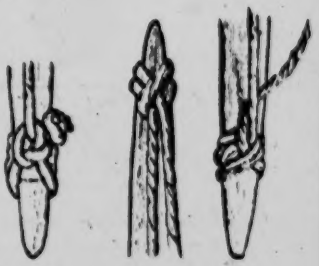
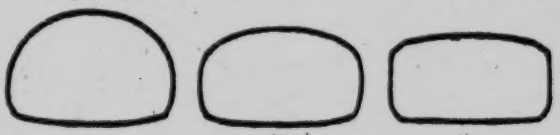


Fig. 93. Lower string holds and string noose, of the bow, fig. 90.

a. b.

Fig. 94. Upper and lower string holds and string nooses of the bow, fig. 91.

By giving the ends of a bow stave an inward bend in the way done in certain Chaco bows, the greater part of the stave — even when stringed — is free from any strain, except when the string is being



A B. C.

03. 3. 250. 03. 3. 256. 03. 3. 257.

Fig. 94. Tranverse sections at middle of the Choroti bow staves. Gran Chaco, Bolivia. 1/1. Riksm.

[1] Grubb (1), pp. 76 and 77.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

drawn back for giving speed to the arrow. Of the circumstances which require a bow-stave construction of this kind, I have given a full account in my description of the bows of the Bangweolo swamp dwellers,[1] so that here I will only mention that such a construction is the right one only for bows that are never altogether unstrung.

Among the Choroti, as among the Mataco,[2] the curved end type of bow is considerably more rare, and less developed, than among the Toba, which latter tribe, according to my opinion, has preserved the Chaco bow in its purest and most highly developed type (see figs. 272–274). Probably the Choroti formerly had bows of the same type as the Toba, but in later times the bow type of the first mentioned tribe is likely to have been influenced by intercourse with the Chiriguano.

Chaco bows have not, *as a rule*, ends that have been pared down for giving a hold to the string (Cfr. figs. 92 and 93 with fig. 205); some Choroti bows, however, have been given this kind of string hold, as may be seen from the table below. These pared down bow ends are undoubtedly an imitation of the Chiriguano stringhold. On the bow stave, immediately inside the loop of the string, the Choroti occasionally lay on a winding of caraguatá or woollen yarn, 0.5 to 1 cm wide (fig. 93), which prevents the string loops from slipping down along the bow stave when the strain is very hard. In a properly made bow, no such windings are necessary, and were certainly not used in the old days, otherwise than exceptionally. Nowadays these windings are often seen: of the eleven Choroti bows studied by me, no less than four are wound inside the string holds.

As a rule, the bow staves have been polished very smooth. Their transverse sections at the middle are shaped as seen in fig. 94. Between the section types A, B and C, there are intermediate forms, which, in my table of Choroti bows, I have named AB and BC.[3] Such transverse sections as are found in the bows of the Choroti are also met with in bows found in the Andean mountain regions, and in the report I have published of my archæological researches in Quebrada del Toro and on the Puna de Jujuy, I have embodied a description of some bows and bow fragments, found in ancient graves, which have the same kind of section and string hold as the typical Chaco bows. Several of the Andean bows are, however,

[1] von Rosen (4), pp. 176–184.
[2] Cf. Krickeberg (1), fig. 33 a.
[3] For transverse sections of other Chaco peoples' bows, see Schmidt (1), p. 1037 et seq.

Choroti bows.

411

Catalogue Nr., Riksm. coll. 03. 3.	Bow-stave material	Length of bow stave, cm	Transverse section at middle of bow stave	Upper string-hold	Lower string-hold	String-material	Remarks
245	Hard, resilient, free from knots	159	Type A	Not pared down	Not pared down	Twisted rawhide	String hold barely noticeably pared down
247	Hard, resilient; less free from knots	150	» »	Not pared down	Not pared down	»	
250	Hard, resilient, free from knots	146	» »	Pared to a neck	Pared to a neck	»	Bow stave near point of upper end sheathed in a rawhide covering, slipped on, about 4.5 cm long
254	Hard, resilient, free from knots	132	» AB	Not pared down	Not pared down	»	Winding for fixing string loop
256	Hard, resilient, free from knots	146	» B	Not pared down	Not pared down	»	Winding for fixing string loop
255	Hard, resilient; less free from knots	146	» »	Not pared down	Not pared down	»	Unusually sharp pointed end
251	Hard, resilient, free from knots	144	» »	Not pared down	Not pared down	»	
252	Hard, resilient, free from knots	136	» »	Not pared down	Not pared down	»	Bow stave near its middle provided with a rawhide sheath, about 8 cm long
253	Hard, resilient, free from knots	133	» »	Not pared down	Pared to a neck	»	Winding, to prevent slipping of string loop. A 5.5 cm long sheath of rawhide fitted on, near lower end of stave
258	Hard, resilient, free from knots	142	» BC	Not pared down	Not pared down	»	
277	Hard, resilient, free from knots	147	» C	Not pared down	Not pared down	»	Winding for fixing string loop.

of convex type — i. e., the staves have a convex string side, and a plane, or slightly concave, back — but I have not seen any Choroti bows with that kind of stave, which does not exclude the possibility of their occurring by way of exceptions. The convex bow is, however, better than the concave kind, and all technically perfected European target bows have their staves convex.[1] The fact of the concave bow being common among a people as low-cultured as the Choroti strikes one as something less to be wondered at than that this type of bow also was in use (together with the concave type) among the comparatively highly cultured Andean tribes.[2]

411 825 In some of the Choroti bows, a sleeve-like covering of rawhide has been fitted on to the stave (see Table »Choroti bows», under »Remarks»).

[1] Walrond (1), p. 286 et seq.

[2] I have previously published an attempt at explaining how the concave type came into being. See von Rosen (10), pp. 34, 35 and 78, 83.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

These casings are not sewn together, but consist of the seamless skin of the tail or leg of some animal. At first I took it as a matter of course that these casings had been put on solely for the purpose of strengthening the bow at some point where it looked like breaking. In order to make certain, I cut loose a casing of this kind, which was on the bow numbered 03. 3. 253, but I could not discover the least crack, knot, or other defect pointing to any necessity for reinforcing the bow at that point. But, between the casing and the stave, I did find some flattened cakes of excrement from some herbivorous animal. Whether these excrements had *purposely* been placed inside the casing, is of course impossible to say, but if they were put there on purpose, then they undoubtedly possessed some magical significance. In such case the idea must have been that they would bring good luck in the hunting of the species of game whose excrement had been placed inside the casing (see p. 181). As among the Indians there is a very wide-spread notion that whoever possesses the skin of some animal also possesses a certain mastery over the spirit of that animal,[1] it is not impossible that the skin casing itself is of a magic character. Professor Emil Holmgren, who, at my request, kindly carried out a microscopical examination of the excrement flakes as well as of the piece of skin, considers that the character of the latter points to its having been a part of the tail of an animal of the goat, sheep, or *cat* tribe, and that the colour and grouping of the hairs are indicative of the *last-mentioned* category.[2] That parts of animals' bodies are used by the Chaco Indians as hunting amulets, is, among other things, evident from a statement by Nordenskiöld upon the subject of hunting among the Ashluslay, who are neighbours of the Choroti: »In hunting, the Ashluslay make use of various amulets. If, in the always indispensable caraguatá bag, one carries the head of a tortoise, then one is able to stalk close up to the deer, without putting them to flight. When hunting ostriches, it is a good thing to bring along pieces of skin taken from the breast of ostriches which one has killed.«[3] As to the other two bows, I have refrained from cutting off the skin casings, and therefore cannot say whether the latter conceal any cracks or not. On the staves of the bows Nos. 03. 3. 252 there are, however, to be seen, close to the casing, several deep scorings, running

[1] Karsten (4), p. 90.
[2] Opinion dated August 24th, 1921. Rockefeller collection of Manuscripts, Volume 1921, »H».
[3] Nordenskiöld (13), p. 49.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

411 with the grain of the wood, and these point to the possibility that the casing may be concealing some defect in the stave. There is, however, nothing which prevents the casing on this bow from being, at the same time, an instrument of magic and a practical means of reinforcement.

411 284 [283] The bow string, which consists of two, three, or more strips of skin (usually deerskin),[1] is often twice the length of the bow (see figs. 90, 95 and 96). One end of the string is fixed with a hard knot to one of the bow ends fig. 93 a). This end of the bow is pressed on the ground, and then the stave is given a slight bend — with the help of the knee — and the string is wound on to the upper bow end, in the way seen in figs. 92 and 93 b. The spare end of the string is then tied along the outer side of the bow, as seen in fig. 90. This figure shows a comparatively well-made Choroti bow, without pared-down string-holds, or windings for holding the string in position, and with the string put on in the proper way. On the other hand, fig. 91 shows a bow with string-hold windings and a string badly put on. In shooting, the Choroti generally hold the bow so that the end wound with the loose end of the string points downwards (figs. 90, 91 and 96).

411 Even when the bow is »at rest» (that is to say, when the string is not much tightened), the middle part of the string, owing to the said curving of the stave ends, will be at a certain distance from the stave, which makes it possible to use the bow without first tightening the string. But if there is time for shortening the string, this is almost always done. The Choroti shorten and lengthen the bow string, in the same way as is done by the Chiriguano on their bows (see p. 208).

For the protection of the wrist from the blow of the string, the Choroti sometimes use broad wrist guards of leather.[2]

[177] The arrows used by the Choroti are, as a rule, tipped with some hard, heavy wood (figs. 97—103), but iron arrow-heads (figs. 104—106) are more and more coming into use. Occasionally, the fore end of a wooden arrow-head may be fixed into the marrow cavity of a sharpened piece of bone. Such bone-tipped arrows are, however, very rarely met with among the Choroti; for my own part, I failed to acquire more than a single

[1] The Choroti also use bow strings made of caraguatá fibre; Nordenskiöld (11), p. 36. I never myself, however, saw any bow strings of that kind.

[2] Nordenskiöld (11), p. 43.

[text continues on p. 94]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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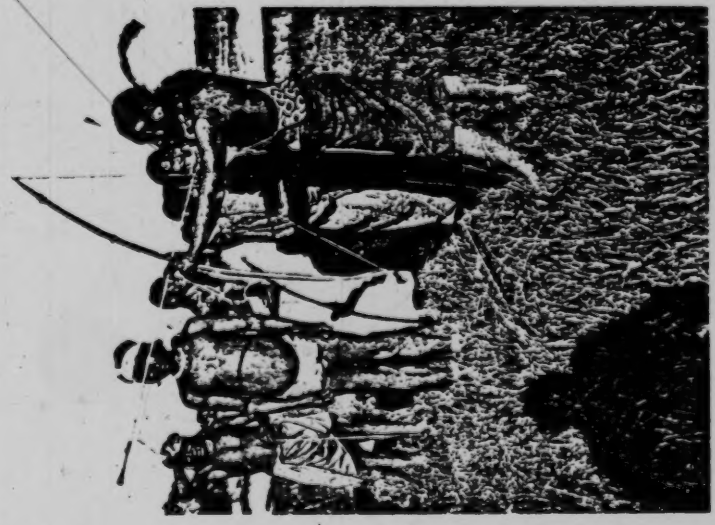

Fig. 96. A man aiming with a bird arrow. Choroti, Gran Chaco, Bolivia.
Photo. E. v. R.

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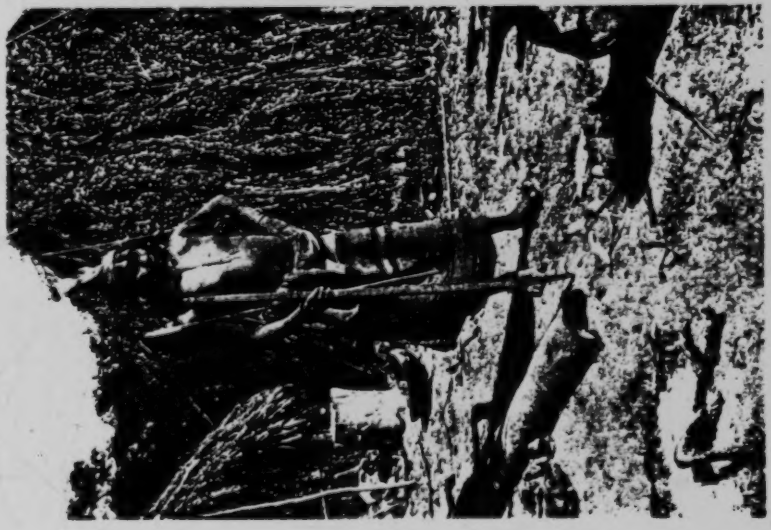

Fig. 95. A man with bow and arrow. Choroti, Gran Chaco, Bolivia.
Photo. E. v. R.

(92)

[p. 92 is blank]

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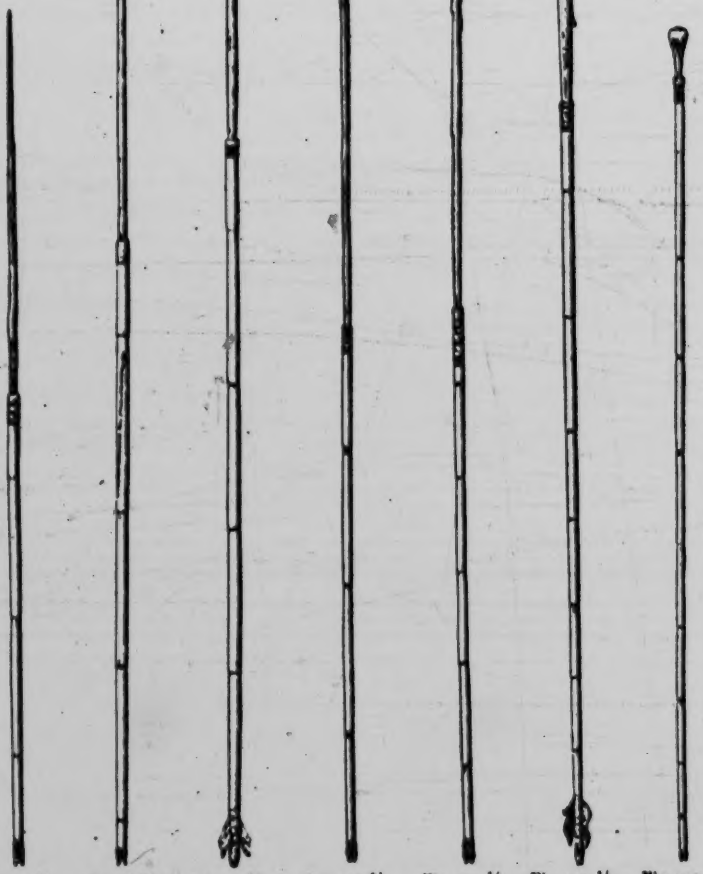

Fig. 97. 1/a. 10. 3. 127. | Fig. 98. 1/a. 10. 3. 126. | Fig. 99. 1/a. 03. 3. 332. | Fig. 100. 1/a. 03. 3. 314. | Fig. 101. 1/a. 03. 3. 317. | Fig. 102. 1/a. 10. 3. 98. | Fig. 103. 1/a. 03. 3. 342.

Arrows tipped with hard, heavy wood, and with shafts of reed. Choroti. Gran Chaco. Bolivia. Riksm.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

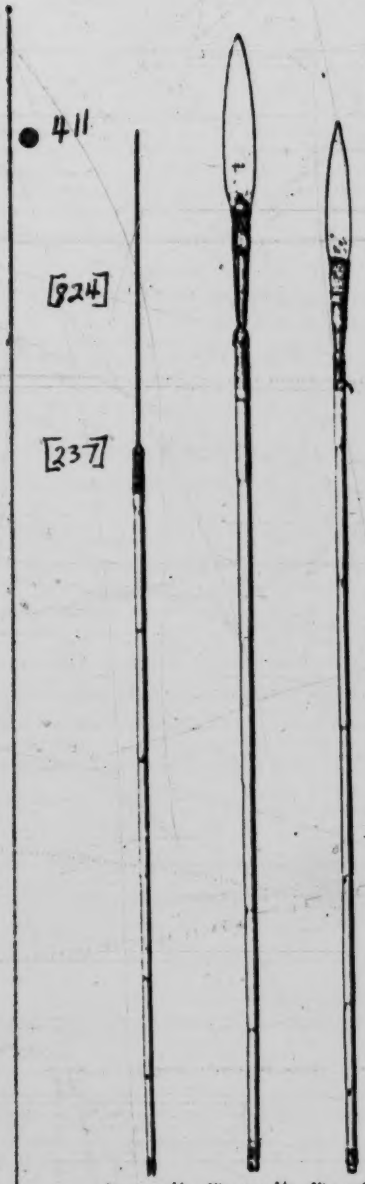

Fig. 104. 1/5 03. 3. 355. Fig. 105. 1/5. 03. 3. 360. Fig. 106. 1/5. 03. 3. 375. Arrows tipped with iron, and with reed shafts. Choroti. Grant Isaco, Bolivia. Riksm.

specimen, which ought to be in the Riks museum collection (numbered 03. 3. 259).[1]

The arrow-shafts consist of a reed, and are generally without feathers. When they do occur, they are fastened on in the way fig. 107 shows.

The wooden arrow-heads, which are usually of quebracho (Schinopsis lorenzii), palo mataco (Achatocarpus praecox), or palo santo (Bulnesia sarmienti), are fitted into the reed shaft, the front end of which is wound with caraguatá fibre in order to prevent its being split open by the arrow-head. This winding is coated with bee's-wax. The rear end of the reed has a notch for the bow string (see fig. 107). The length of the reed is adjusted in such a way that the notch in the butt end can be made immediately behind a joint, which naturally increases the strength of the shaft butt. The rear end of the shaft too is provided with a heavily waxed winding of caraguatá fibre. The thicker end of the reed (the lower end of the growing reed) is always used for fixing the arrow-head, as then the joints slip more easily over the bow-stave than if the head were inserted in the thinner end of the reed.

Such arrows as are pointed with thick iron wire (fig. 104), have the rear end of the point wound with well waxed fibre. The fibre-wound part of the arrow-head is pushed so far into the shaft as to make the front edge of the winding come flush with the mouth of the reed shaft. Lanceolate iron heads (figs. 105 and 106) are fitted into a cleft wooden socket, in the manner I have described from the Chiriguano (see p. 208).[a] Over the winding, which

[1] Cf. Nordenskiöld (11), fig. 5 b.

[a] [Not processed. – Analyst]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

is applied about the socket, there is sometimes, covering it wholly or in part, a casing of snake or lizard skin (fig. 106). In order that the heavy arrow-head (together with its socket) may not happen to slip out of the shaft when the arrow is being carried in the belt, the foremost end of the string used in winding on the socket is often passed back along the socket ((in the way shown in fig. 105)) and tied on to the winding on the fore end of the shaft.

Poison is never put on the arrow-heads, but these are often provided with barbs (figs. 99—102). For bird-shooting the Choroti use arrows with a club-shaped head (fig. 103), in appearance similar to those I have described from the Chiriguano. Among the Choroti, however, there are seldom seen club-like arrow-heads that have, in the centre of their striking face, a projection such as the Chiriguano arrows have (see fig. 212 and p. 209). As regards the Choroti arrows I have here reproduced, their lengths, and other particulars about them, will be seen from the appended table.

Fig. 107. Feathering of the arrow, fig. 99. 1/1.

I think I ought to mention that in ancient Indian graves in the mountain region there have been found arrows of exactly the same types as those nowadays used by the Choroti and other peoples of the Chaco.[1] These types are, however, not those that are characteristic of the mountain region, the arrows of the mountain tribes now inhabiting the area of the ancient Peruvian realm having quite a different appearance.[2]

As regards arrow-heads, I wish to point out that even the most singular forms may be common to peoples that are each others' antipodes. In cases where human beings have reached much the same stage of cultural development, when they have similar needs, and access to the same sort of materials for weapons and other implements, then similar forms of implements are apt to be produced, independent of time and locality. As an example of this I may adduce that among the Esquimaux of western Greenland are to be found arrows with bone heads of exactly the same

[1] See for example Boman (4), pp. 729—730; Joyce (1), plate XXVI, fig. 4; Lehmann-Nitsche (4), p. 37.
[2] See for example von Rosen (10), pp. 140—143.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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The Choroti arrows in figs. 97—106. Synoptic table.

Fig.	Head					Socket		Shafting	Shaft			Length of arrow, cm	Mode of using
	Material	Shape	Length beyond socket, cm	Length beyond shaft, cm	Arrow poison	Material	Length beyond shaft, cm		Material	Length, cm	Feathers		
97	Hard, heavy wood	Needle-like, with irregular transverse section; no barbs	—	40.1	None	—	—	Arrow-head stuck into a hole in the shaft	Reed	45.8	None	88.9	Hunting of various middle-sized game; also a war weapon
98	»	»	—	35.7	»	—	—	»	»	65	»	100.7	»
99	»	Needle-like. Section of rear portion irregular; of front portion triangular. Barbed along all three edges	—	35.9	»	—	—	»	»	75	Two, opposite each other, see fig. 107	110.9	»
100	»	Needle-like. Section of rear portion irregular; of front portion square. Barbs along two opposite edges	—	58.1	»	—	—	»	»	72.4	None	130.5	»
101	»	»	—	63.1	»	—	—	»	»	75.8	»	138.9	»
102	»	Lanceolate, two-edged. Barbs along one edge. Rear portion of irregular section	—	31.6	»	—	—	»	»	80.1	Two, opposite each other, as in fig. 107	111.7	Hunting of bigger game, such as jaguar and ostrich. War weapon for short ranges
103	»	Club-like	—	8.4	»	—	—	»	»	125.5	None	133.9	Bird-shooting
104	Thick iron wire	No barbs	—	48.1	»	—	—	Rear end of arrow-head wound to a length of 9.3 cm with waxed fibre. The wound part of the arrow-head fitted into a hole in the shaft	»	101.7	»	149.8	Hunting of various middle-sized game. War weapon
105	Iron	Lanceolate, with tang. No barbs	17.7	—	»	Hard, heavy wood	13.4	Tang fitted into a cleft in the socket. Socket fitted into a hole in the shaft	»	87.9	»	119	Hunting of larger game, such as jaguar and ostrich. A war weapon for short range
106	»		14.7	—	»	»	9.5	»	»	85.8	»	110	»

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

shape as the strange-looking Choroti arrow, which is seen in fig. 102.[1] The Esquimaux, like the Choroti, live in a bone-and-wood age, although the latter people to a large extent use the bone-hard wood of several species of Chaco trees in the place of bone. In both cases the arrows are intended for hunting big game. It is a strange thing, however, that the arrows just referred to, from Greenland and from the Chaco, are so much alike in shape that one might point to a reproduction of the Esquimaux arrow in question as being the type of a lanceolate, barbed, Choroti arrow. As to the ancient Indian arrows of Chaco type found within the Andean region, previously referred to, it is, however, not only their form that is identical with the Chaco arrows, but also the material (reed, and species of wood that do not grow in the mountain region) is typical of the Chaco. This being so, it may with great certainty be established that the ancient Indian arrows in question really originate from the Chaco, and that we here have one of the many indications that point to old-time communication between the mountain region and the plains to the east of it.

The Choroti hunt all sorts of game, from jaguars, pumas and ostriches, to lizards and rats. Among edible game are counted, among others, also birds of prey (even vultures), foxes, armadillos, rats, lizards and snakes. On the other hand, some Choroti, at least, will not touch deer's flesh, as they believe these animals to be possessed by evil spirits.[2] Some of the species of animals just enumerated, too, are by certain individual Choroti considered dangerous to eat (see p. 114).

When the Choroti are out hunting with bow and arrow, they naturally endeavour to stalk as closely as possible up to the game, and then occasionally employ a stratagem common to many tribes who live by the chase, namely that of tying tall leafy bunches about waist and shoulders, so as to give the hunter the appearance of a bush. This stalking trick is also known to the Lengua. On this point, Grubb writes to the following effect: »The ostrich is a very wild, though stupid bird, and the hunting methods of the Lengua are based on this fact. When hunting in a palm forest, the hunter ties a few palm leaves together and fastens them to his head and shoulders, so as to resemble a small palm. By means of this disguise he has no difficulty in getting within easy range of

[1] Solberg (1), p. 73, fig. 54, bottom row of arrows, the second specimen from the left.
[2] Karsten (2), p. 33.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Fig. 110. War club, of hard, heavy wood (palo mataco). Choroti. Gran Chaco, Bolivia. 1/4 Riksm. 10. 3. 92.

As war weapons the Choroti use, beside bows and arrows, short, round-handled clubs of some very hard and heavy wood, usually palo mataco. The head and handle of the clubs is always carved in one piece (fig. 110). With these seemingly not very formidable weapons, the Indians are able — on account of the great hardness, heaviness and strength of the club material — to deal terrible blows, and they know how to use them with great skill.

In fighting their rivals, the Choroti women sometimes use knuckle-dusters of tapir-hide or wood,[1] the latter being of a type identical with specimens found in ancient Indian graves in the mountain region to the west.[2] The Choroti use also bone awls as daggers. A bone awl especially suitable for a weapon is reproduced in fig. 111. It consists of the lower part of the leg-bone of a small deer; the foot serves for a handle, and the hoofs forms an excellent pommel. The weapon fits the hand very well when the thumb rests against the sole of the hoof.

For cutting up game, the Choroti use knives made of sharp-edged cane splinters. Knives and poniards, of cane, have been very extensively used in South America. Even among tribes possessing knives of stone or metal, to this day knives of cane are being used in certain ritual ceremonies. Thus Bolinder, for example, mentions that among the Ijca Indians of Northern Columbia, in childbirth the navel is cut with a cane splinter.[3]

Fig. 111. Awl, made out of a shank bone of a small deer. Bone awls are sometimes used as poniards. Choroti, Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 181.

The Choroti do not, however, possess only weapons of offence, but also weapons of defence. When on the subject on dress, I have described the mail shirts, made of closely woven, thick

[1] Nordenskiöld (11), p. 55 and 56; also (13), p. 81.
[2] von Rosen (1), pp. 203 and 204.
[3] Bolinder (1), pp. 240 and 243.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

714 caraguatá string, that are used by the Choroti as a protection against arrows (fig. 36), and have mentioned the protective abdominal rawhide belts that they put to the same use.

To many it may sound strange that mail shirts made only from vegetable fibre actually should be able to afford effective protection against arrows and other sharp-pointed, or edged, weapons. Body armour of this kind has, however, been used by many different peoples, and even as early a writer as Homer makes mention of »linen cuirasses».[1] When Herodotus makes a list of the weapons of offence and defence carried by King Xerxes' Assyrian auxiliaries, this list also includes »cuirasses made of linen».[2] Textile armour is, besides, also referred to by several ancient Greek and Roman authors. In the tales of the early history of Rome, we can read of Aulus Cornelius, a leader of Roman horse, how in battle he stripped Lars Tolumnius, the king of Vejentes, of a »linen cuirass» and solemnly dedicated it, among »spolia opima», to Jupiter Feretrius, at his temple on the Capitolium.[3] This, it must be admitted, undoubtedly points to the great esteem in which these defensive weapons must have been held. That the fibre mail shirts of the Choroti form a rather safe protection against the wood-tipped arrows that are generally used on the Chaco, is a circumstance I have already set forth.

726 411 Occasionally the Choroti make use of incendiary arrows for the purpose of setting fire to the villages of their enemies. On our way home from the Pilcomayo, in Argentine territory we passed a sugar plantation, to which Indians from different parts of the Chaco had come for work. Two tribes, between whom old enmity existed, had erected temporary villages for themselves near the plantation, and, for some reason or other, the old hostility was kindled into flame, so that it came to open fighting. The owner of the plantation told us that, on the night before our arrival, the Indians had shot incendiary arrows at each other's villages, and that by this means they had managed to set several huts on fire. We could quite believe that the scene then enacted was both terrifying and grand, with the fire-carrying arrows flying about like rockets in the night, whilst the war cries of the Indians made accompaniment to the battle.

[1] Homer (1), epos 2, verse 830.
[2] Herodotus (1), p. 38–44, p. 471, Lindskog's translation.
[3] Neumann (1), p. 385.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

way, *and by renewed research among the Indians*, that we shall be enabled to obtain a thorough knowledge of their conception of magic blood-letting by means of awls.

In the foregoing I have mentioned that Choroti bow-staves are sometimes provided with a small skin casing, slipped on, and that on opening one of these casings I found that it contained excrements from some herbivorous animal. It is of course impossible to tell with certainty what the motive was for putting on this skin casing (see pp. 88 and 89), but I think it probable that it was put on the bow for some magic reason. It is noteworthy that it contained excrement. The fact of this being so is a circumstance that, in my opinion, especially points to the casing being of a magical character, for, according to the Chaco Indians' way of thinking, certain excrements possess magic properties and are often made use of in casting spells.[1]

All kinds of illnesses are by the Choroti considered to be caused by evil spirits. As yet, however, we know but little of these Indians' conception of the character and curing of different illnesses. Once Nordenskiöld called in medical aid from a medicine man among the Choroti, and this is how he describes the way in which the medicine man set about it:

»On many occasions, in the villages, I have seen the medicine men practising their profession. One day, among the Choroti, when I was feeling a bit seedy, I called one of those gentry to my camp. Giving out that I had a severe pain in the lower part of my chest, I asked him if he cared to cure me. He promised to come to me in the evening. At nightfall he arrived, accompanied by a colleague. They insisted on being left alone with me. Moberg and Andersson were consequently turned out, and sentries were posted so as to prevent anyone unauthorized gaining access to the hut. For a start, they made me strip to the skin, and then lie down. They stroked me with their hands over the chest, the sides of my body and the stomach, and then they spat on me. After that, they set to blowing on me, and then they laid themselves down and sucked hard at my chest, in particular at the spot where I had complained of the pain. After having sucked for a while, they turned away and pretended to vomit. Whatever they vomited up in this way, they did not show me, but, as they squeezed it between their fingers, it looked as if they had been squeezing worms. This performance lasted, I think, the

[1] See, for example, Nordenskiöld (13), pp. 93 and 98.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

VII.

Hunting Weapons and Equipment.

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The Choroti are not eager huntsmen. The Ashluslay propably hunt more. Their only real hunting weapon is the bow and arrow. They also have snares of various sorts, though I do not know if they use them much. The sling and the bolas also occur among these Indians, but only as boys' weapons.

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The *bow and arrow* are certainly very old cultural elements throughout S. America. We find them almost all over the continent and among all the really primitive peoples. As far as I know, this weapon is only wanting on the Upper Amazon, or at least was rare there, for in the oldest books of travels[1]) from these parts we are told that on the upper part of this river the Indians fought with spears which they flung with the throwing stick, whereas lower down the river they used the bow and arrow. In the mountainous regions and on the Peruvian coast, i. e. in the greater part of the cultural zone in the West, the bow and arrow was also a rare weapon[2]). One may really ask why the Indians there preferred to use the throwing stick rather than the bow, which latter was nowhere unknown to them. Vergl. gives us a good explanation[3]): «The throwing stick carries as far as a bow, and is much more convenient for them, as they can

[1]) See Gaspar de Carvajal and Acuña.
[2]) But was not unknown there.
[3]) P. 256.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

make the throw with the right hand alone, leaving the left free to steer or direct the boat.»

In the mountainous districts and on the Peruvian coast it was in part no doubt the lack of wood suitable for making bows that made this a rare weapon, but also in part the advantage of having the left hand free while using the throwing stick.

The bow (Fig. 4) that is used by the Indians dealt with here, is very poor in comparison with the bows used by most of the Indians inhabiting N.E. Bolivia. The transverse section shows a very varying form. The two ends of the bow are sharpened to a point, and are not provided with notches to hold the string. Bows of this sort, without notches, seem to belong to a very old cultural phase in S. America, for we only find them in the extreme south, and among a small number of very primitive peoples in Bolivia and Brazil.

PATER SCHMIDT mentions the following tribes that have bows ending in a simple point without notches for the string: Botokudo, Bugre, Chamacoco, Sapuki, Mataco, Toba, Angaité, Payaguá, Mbayá (Kadiuéo), Siriono, Pampas Indians, Mirana, Yanaperi and Vašmiri[1])

A few tribes have very indistinct notches at the end of the bow.

To the tribes enumerated by PATER SCHMIDT I can add, on the basis of archaeological material, the Indians in the Puna de Jujuy in Argentina[2]).

The bow-strings of the Choroti and Ashluslay Indians are made partly out of caraguatá fibres, partly out of strips of skin. Bowstrings of animal material are only found among the Indians in southern S. America as far north as the Chaco. (Map 2). In tropical S. America such bow-strings are unpractical and rare. Bow-strings of tendons or strips of skin

[1]) PATER SCHMIDT, p. 1033.

[2]) LEHMANN-NITSCHE (1) Pl. 2, fig. 3; pl. 3, fig. 16.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

are, or were, used by the (27) Ona [1]), (5), Chané[7]) (2) Ashluslay[7]), (1) Choroti[7]), (6) Mataco[7]), (7) Toba[7]), (3) Tapiete, (10) Araucanians[2]), (26) Patagonians[3]), (17) Abipone[4]), (16) Guató[5], [8]) and (8) Lengua [9]).

WHIFFEN mentions bow-strings of strips of skin from (61) tribes on the north bank of the Rio Yapurá[6]). MEYER assumes that a bow with tendon string, which has been preserved since the 17th century in Copenhagen, comes from (56) Mundrucú. I consider it probable that the string which is now on the bow did not originally belong to it[10]).

For the rest, bow-strings of vegetable material are found throughout S. America.

In fig. 5 a, b, c, and d are reproduced the most important of the types of arrow heads to be found among the Choroti and Ashluslay. Of these I have attempted to study the distribution of the arrows with thickened heads (the bird arrow) (fig. 5 d) and would refer to Map. 3 and the subjoined list of references concerning the distribution of these arrow-points. The map pays no regard to the shape of the points among the different tribes.

The Geographical Distribution of the Bird Arrows in S. America (Map. 3)

No. on the map.

45 Botocudo, WIED, Vol. 2, p. 25; v. IHERING (2), Pl. 2, fig. 5; THERESE VON BAYERN (1), Pl. 4, fig. 8.

14 Bororó, STEINEN (3), p. 485.

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1) GALLARDO, and others.
2) MEDINA, p. 134.
3) PIGAFETTA p. 12.
4) DOBRIZHOFFER, Vol. 2, p. 354; »of the entrails of foxes».
5) MAX SCHMIDT (3), p. 180.
6) p. 95.
7) Also of Caraguatá fibre.
8) Also of palm fibre.
9) GRUBB, p. 77.
10) Is it not possible that some little princes played with the bow, and having lost the original string had a new one fitted to it?

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

7 Toba.
29 Caingáng, AMBROSETTI (1), fig. 5.
30 Guayaqui, KUNIKE pag. 158. (Not on the map.)
17 Abipone, DOBRIZHOFFER, Vol. 2., p. 359.
97 Puri, WIED, engravings and maps to Vol. 1. Pl. 12, fig. 4.
13 Finds from Arica, UHLE (1), Vol. 1, Pl. 25, fig. 24 and 25, JOYCE, Pl. 26,4.

Arrows with thickened heads are almost entirely wanting throughout the N.E. of Bolivia, N.W. Brazil[1]), among the Indians of R. Purús[2]), among the Jivaro[3]), the Ona[4]), and probably the Mojo[5]) Indians.

These arrows, therefore, do not occur in every district where they might have been used with advantage. But it may be asked whether arrows with thickened heads are not somewhat unnecessary among tribes that have blowguns. These arrows are used especially in shooting at birds in trees. If the arrow does not strike the bird, but the trunk of the tree, it does not stick there as a sharp arrow would, but falls down and can be used again. The blowgun, too, is chiefly used in shooting at birds and small mammals that are found in trees. The two seldom occur together among the same tribe. It seems to me impossible to say at present where the bird arrow originated. It is probably a very old cultural element. The most primitive, but not certainly the oldest form of this kind of arrow, is found among the Botocudo, Puí, Kayapó, Paressi-Kabiši, and in parts among the Guató, where the thickened end is made of the root of the cane which constitutes the shaft.

The Ashluslay wrap their left wrists round with a thick cord as a protection against the bow-string. The Choroti, Mataco and Ashluslay sometimes have broad leathern brace-

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[1]) KOCH-GRÜNBERG, WHIFFEN.
[2]) EHRENREICH.
[3]) RIVET (1).
[4]) GALLARDO, etc.
[5]) CASTILLO, p. 318.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

Fig. 6. Leather bracelet adorned with tin-plate. Ashluslay, R. M. (A. 1025) 1/2.

lets (fig. 6), which probably serve the same purpose. *Wristlets* for shooting with the bow have not been observed among many of the S. American Indian tribes. From books I know of them among the Abipone[1]), Botucudo[2]), Crichaná[3]), Goajiro[4]), Guató[5]), Ipurucotó[6]), Karajá[7]), Mbayá[8]), Mundrucú[9]), Chavantes[10]), Chieriabá (on the R. de S. Francisco, E. Brazil[11]), Cainguá (Cayua)[12]) and Ona[13]).

The wristlet is, as far as I can see, a cultural element the distribution of which is too little known for us to venture upon conclusions with regard to its origin.

Snares are probably extensively used in S. America, though they have been little studied. On my travels I came across a great number of snares set in very various ways by the Choroti, Chané, Toba, Cavina, Guarayú (Pauserna) and Tumupasa.

I will not attempt here to determine the distribution of the different types of snares. The fact is probably that all, or almost all, the Indian tribes use snares of some sort, though they may have escaped the notice of most travellers. When opportunity offers I will describe and depict, in a sep-

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1) Dobrizhoffer, Vol. 2, p. 354
2) Wied, Vol. 2, p. 27
3) Barbosa Rodrigues, p. 161.
4) Thekkik v. Bayern (1) Vol. 1, Pl. 1, fig. 7.
5) Max Schmidt (3), p. 238.
6) Barbosa Rodrigues, p. 145.
7) Krause, p. 275.
8) Sánchez Labrador, Vol. 1, p. 316.
9) Martius, Vol. 1, p. 388.
10) " " " " 272.
11) " " " " 278.
12) Lopes, p. 320.
13) Gallardo, p. 150.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

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arms are made. I have not seen similar slings among any other tribe.

The *Bolas*, too, is only found among the Choroti and the Ashluslay as a toy or as a boy's weapon. There are no stones to make the balls, so these are made of wood.[1]) FRIEDERICI[2]) has indicated the distribution of the bolas. He mentions the Aymara, Quichua, Mojo, Mataco, Abipone[3]) and other Chaco Indians, the Araucaniaps and other allied tribes, the Indians of the Argentine pampas, the Patagonians and some of the Fuegians[4]). To this list may be added the Querandi[5]) at the mouth of the R. La Plata.

Fig. 7. Ashluslay Sling. R. M. (A. 1555).

Stones similar to those used for the bolas have been found in an extensive region in the west and south of S. America. A good deal that has been written about these stones is passed over by FRIEDERICI in the treatise just referred to; v. IHERING[6]) has written about these stones in S. Brazil. RIVET[7]) who offers us a very complete résumé concerning their distribution, is of the opinion that they were used in different places for different purposes. It must therefore not be assumed that wherever bolas-like stones have been found, the bolas was in use. EDER[8]) mentions the

[1]) See »Indianerleben» fig. 24.
[2]) (4) p. 34.
[3]) Also as a toy. FRIEDERICI (4), p. 34.
[4]) See also COLAZZI. p. 124.
[5]) SCHMIDEL. p. 150.
[6]) (1), p. 73.
[7]) (4) p. 177.
[8]) p. 209.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

ODD woods the bolas is an unserviceable weapon. Toy bolas, like those used by the Choroti and Ashluslay, have not been observed by me among any other tribe. From books I only know of toy bolas from the Patagonians[1]), Araucanians[2]) and among the Incas, as stated by FRIEDRICI[3]) following HUAMAN POMA.

Fig. 8. Pellet bow. Ashluslay. G. M. (A. 1798) 1/4.

A combination of sling and bow is the *clay-pellet bow* (Fig. 8). I have seen it among the (16) Mataco (Mataco-Vejos), (2) Ashluslay, (1), Choroti, (3) Tapiete, (22) Yuracáre, (4) Chiriguano, (5) Chané (23) Chirápa, and (87) Mestizos of Sta. Cruz in Bolivia.

GUSTAF ANTZE has written a treatise on the distribution of the pellet bow in the world. According to him, it is in use in the following districts and among the following tribes of S. America: (87) Brazilian coast, W. of Cabo Frio, (87) Sta. Catarina, (3 c) Machali on the R. Belmonte (21) Caingáa (16) Guató, (17) Abipone, (8) Lengua (I), Guarani (Paraguay) (IV) Guaná (11) Chamacoco, (X) 4 Payaguá (II) Tereno (9) Toba, (12) Mbayá (Kadiuéo) (75) Angaité (87) among Portugese boys in Leopoldina, and among the (13) Karajá.

As seen from Map 5, the pellet bow has an easterly and much concentrated distribution in S. America. It also occurs in India and E. Asia. It appears to me improbable that the pellet bow should have been invented independently in Asia and in S. America, and I almost came to the conclusion some time ago that the pellet bow reached the New World from the Old in some manner in pre-Co-

[1]) OTTER and BIRCH p. 123.
[2]) PATAGONICI (4), p. 34.
[3]) [illegible]

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

VIII.

Weapons not used, or seldom used, in the Chase.

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The bow and arrow is the most important weapon used by the Chaco Indians here dealt with in their encounters with other Indians or with white men. I have treated of the bow and arrow above. Particular types of arrows that are only used in encounters with men, are not found, with the exception of the *fire-arrow*. The Mataco, and probably also the Choroti when they attack an Indian village, occasionally employ such arrows. With them they set fire to their adversaries' huts. Similar arrows are mentioned by DOBRIZHOFFER[1]) from the Abipone, STADEN[2]) from the Tupinambá, MARTIUS[3]) from the Chavantes, SCHMIDEL[4]) from the Indians at the estuary of the La Plata, BIET[5]) from Indians that lived near the estuary of the Oyápock in Guayna, DU TERTRE[6]) from the Lesser Antilles, and PIZARRO[7]) from Cuzco. Other weapons, not used, or seldom used in the chase, but principally in contests with men, are clubs, knuckle-dusters, lances and bone daggers.

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The *battle-club* has a characteristic shape among the Choroti and Ashlaslay. It is short with, a clearly marked head.

[1]) p. 359.
[2]) Vol. 1 Caput IIIj; Vol. 2, Caput xxvij.
[3]) p. 270.
[4]) p. 155.
[5]) p. 219.
[6]) Vol. 2, p. 404.
[7]) p. 200.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5
Mataco SI7

PATER SCHMIDT[1]) mentions such clubs from the Tsirakua[2]) Ashluslay, Choroti, Sanapana, Chamacoco, Pilaga, Payaguá Mataco, Lengua, Mascoi, Guaná, and from the old culture zone in the West.[3]) I may add the Tupinambá[4]) and the Tapiete. PATER SCHMIDT points out[5]) that the occurrence of this type of club in the Chaco points to influences from the mountain culture. Here he is probably right.

It is of great interest to note the distribution of wooden clubs with clearly marked heads, and of clubs with stone heads. In S. Brazil, as in the Andes, we find stone clubheads. In the Chaco they are exclusively of wood, the very natural reason being that there are no stones. The occurrence of stone clubheads in S. Brazil will be the more readily understood on the assumption that the wooden club in the Chaco is a local form of the stone-headed Andes club.

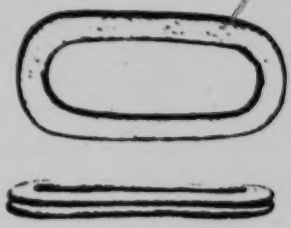

Fig. 10. Knuckle-duster. Mataco. R. M. (03. 3. 074) 1/3.

A rare weapon in S. America, which is found in the Chaco among the (1) Choroti, (6) Mataco, (3) Tapiete and (2) Ashluslay, is the knuckle-duster (Map 5).[6] It is used there by the women. Most knuckle-dusters in the Chaco are made of wood or Tapir hide. The knuckle-duster depicted above, which is of wood, is from the Mataco (Fig. 10). A drawing of a knuckle-duster of tapir hide from the Ashluslay is given in «Indianerleben».[6]) From the distribution of the knuckle-

[1]) p. 1027.

[2]) Incorrectly quoted from my book, «Indianerleben», SCHMIDT substituting Siriono for Tsirakua. The little missile clubs of the last-named Indians are, moreover, very different from those of the other Chaco Indians. (See «Indianerleben» fig. 140).

[3]) p. 1052.

[4]) LERY, Fig. p. 241.

[5]) p. 1027.

[6]) Fig. 37.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

361 (material for roofing huts), the Indians are apt to build their villages in
824 the proximity of some grove, or forest, of palms (›palmar‹). As a case in instance, the Choroti village at Tatarenda was situated quite close to a palm grove, and not very far from a largish palm forest. It is of im-
[262] portance that algaroba trees should be growing in the neighbourhood, as the fruit of this tree plays a prominent part in the food arrangements of these Indians.

342 The huts are of a very primitive character, and are built in the following manner; With a digging-stick (fig. 27) of hard, heavy wood, a succession of
[142 holes is dug, or jabbed, in the ground, so as to
291 form a circle with a diameter of 2 metres or upwards.
301 In each of these holes is planted an unlopped, bent-
412] grown branch, thick end downwards, so that the tips of the branch point towards the centre of the circle. By this means a cupola-shaped frame is formed (fig. 26). This frame is covered with a thick layer of palm leaves and grass (figs. 16, 25), unless palm leaves are difficult to obtain, when the hut will be covered with grass only, although huts thatched in this way have less rain resistance. But even the most carefully built Choroti huts are, however, poor enough dwellings which, in any heavy downpour of rain, are unable to keep those inside them from a wetting.

Fig. 18. A man holding a pestle in his hands. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

The huts have one, or even two, entrances, about one metre in height (figs. 16, 25), but huts of the largest size are sometimes provided with several entrances. A sort of porch, constructed of branches and grass, may occasionally be built out from the entrance. When several huts are close together, they may not unfrequently be connected with each other by means of covered passages, or tunnels, built similarly to the huts.

352 The latter do not contain many utensils. Ranged along the wall, bowls
415 made of gourd shell, a few clay vessels and a wooden mortar are gene-
824 rally seen. In prettily knitted net bags of spun caraguatá fibre,[1] the Choroti keep all manner of small articles, such as mussel-shell spoons,

[1] Caraguatá, or chahuar (chaguar), Bromelia serra, is, as I have already pointed out, especially common in the Chaco.

wooden sticks for fire-drilling, toilet articles, magic rattles, etc.

Fig. 27. Wooden digging-stick (wood of Bulnesia sarmienti). The handle and the spade-like point are flat, the rest, of round section. Choroti, Gran Chaco, Bolivia. 1/4. Riksm. 10. 3. 84.

a secondary one.[1] In Central Africa I have seen Wemba 343
and Bisa men construct food-storing racks for smoking 251
food, or drying it by fire. These racks are built on
exactly the same plan as the cooking-sheds of the Choroti, [824
although lower than the latter, and not covered with 412]
grass. That also the Indians of South America made use of drying or roasting racks, is evident from fig. 29, provided that this picture, reproduced from an account of travel in the 16th century,[2] actually is a faithful representation of an Indian roasting-rack.

Fig. 28. Frame of cooking-shed; also used as a food rack. Choroti, Gran Chaco, Bolivia. From Erland Nordenskiöld.

The roasting-rack, such as it is reproduced above, may conceivably be a development of the food-storing rack discussed by me in chapter VII (pp. 198, 199), and in the following way: Those usually fairly tall racks that are built for the protection of food against damage from wild or domestic animals, are, as a rule, particularly well adapted for drying fish, etc. When the weather is unfavourable to sun-drying, the idea would present itself of assisting the preserving process by making a fire under the rack, by means of which the food would dry more quickly, at the same time that, through the action of the smoke, it would keep longer from decomposition. By lessening the height of the rack, in the way shown in fig. 29, the effect of the fire would be increased so much that the food would quickly be cooked, and ready for immediate consumption.

When the Choroti quit a dwelling-site in order to 361
build their village elsewhere, they often burn their old

[1] Cfr. my theory as to the origin of pile-building construction, pp. 192–199.
[2] Schmidel (I), p. 29.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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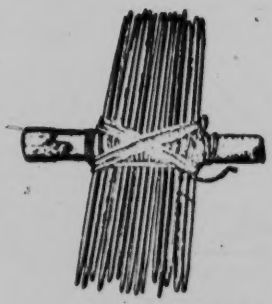

Fig. 85. Split-cane comb. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 74.

Fig. 86. Wooden comb, carved in one piece. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 70.

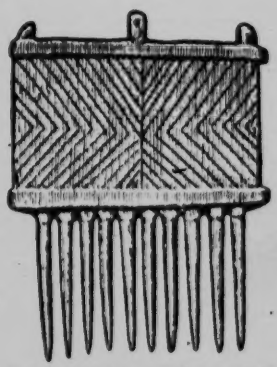

Fig. 87. Wooden comb, carved in one piece; the handle carved on both sides into angular ornament. Choroti. (This comb may possibly have been made among the Chiriguano.) Gran Chaco. Bolivia. 2/3. Riksm. 10. 3. 38.

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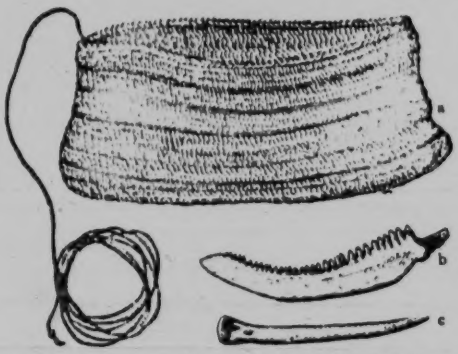

Fig. 88. Miniature bag (a) of undyed (greyish-white), brown, yellow, and black caraguatá fibre. When the author obtained the bag, it contained a stamp for face-painting (b) and a small bone awl for tattooing and blood-letting (c). Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 101.

older cultural element. The split-cane comb in fig. 85 consists of a piece of cane, about 7.2 cm long, into which a split has been made from one end, so that only 2 cm of the other end of the cane are left intact. The insides of the two legs forming this crotch have been pared down so that the space between the legs of the crotch equals the thickness of the comb teeth at their middle, i. e., in this case about 4 mm. In the fork of this crotch the teeth, 1 to 2 mm thick, have been placed and secured by tying, with their flat sides together. This class of Choroti combs are generally of a construction differing somewhat from the one described, in that the cane has not been split from one of the ends in order to afford room for the teeth, but, instead, there is usually in the middle of it a recess, into which the teeth are fixed in the way I have described.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Fig. 110. War club, of hard, heavy wood (palo mataco. Choroti, Gran Chaco. Bolivia. 1/4 Riksm. 10. 3. 92.

As war weapons the Choroti use, beside bows and arrows, short, round-handled clubs of some very hard and heavy wood, usually palo mataco. The head and handle of the clubs is always carved in one piece (fig. 110). With these seemingly not very formidable weapons, the Indians are able — on account of the great hardness, heaviness and strength of the club material — to deal terrible blows, and they know how to use them with great skill.

In fighting their rivals, the Choroti women sometimes use knuckle-dusters of tapir hide or wood,[1] the latter being of a type identical with specimens found in ancient Indian graves in the mountain region to the west.[2] The Choroti use also bone awls as daggers. A bone awl especially suitable for a weapon is reproduced in fig. 111. It consists of the lower part of the leg-bone of a small deer; the foot serves for a handle, and the hoofs forms an excellent pommel. The weapon fits the hand very well when the thumb rests against the sole of the hoof.

For cutting up game, the Choroti use knives made of sharp-edged cane splinters. Knives and poniards, of cane, have been very extensively used in South America. Even among tribes possessing knives of stone or metal, to this day knives of cane are being used in certain ritual ceremonies. Thus Bolinder, for example, mentions that among the Ijca Indians of Northern Columbia, in childbirth the navel is cut with a cane splinter.[3]

Fig. 111. Awl, made out of a shank bone of a small deer. Bone awls are sometimes used as poniards. Choroti, Gran Chaco. Bolivia. 2/3. Riksm. 93. 3. 181.

The Choroti do not, however, possess only weapons of offence, but also weapons of defence. When on the subject on dress, I have described the mail shirts, made of closely woven, thick

[1] Nordenskiöld (11), p. 35 and 56; also (13), p. 81.
[2] von Rosen (1), pp. 203 and 204.
[3] Bolinder (1), pp. 240 and 243.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

skinning or gutting, and are usually eaten with entrails, excrement and all. When the Choroti eat the entrails of larger animals, they do not first rinse them out, but are, at best, content with squeezing out the contents. Nordenskiöld has seen them eating intestinal contents as spinach together with the meat.[1] Fish is grilled, either by being laid on glowing embers, or tied between two sticks stuck into the ground by the fireplace.

As servers for food are used bowls of clay, wood, or calabash shell, or merely large, fresh leaves.

In foregoing chapters I have given the names of such plants, wild as well as cultivated, as are of importance in the food supply of the Choroti. Vegetables are eaten raw, boiled, roasted or dried. The Choroti, like other Chaco tribes, eat the fruits of the algaroba, and other similar fruits, in the following, rather original way. The raw fruits are put into a large wooden mortar (fig. 122), and there pounded up. The pulp is put into a calabash bowl, where it is stirred up with water, and the dish is then ready for eating. Those who are about to partake, squat down around the bowl, and each individual helps himself with his bare hand to the pulpy mass, which he puts into his mouth, chews and sucks, whereupon he spits his mouthful of mush back into the bowl. Another mouthful is taken, and in due course spat out, and so on. This is repeated by all the participants of the meal until all the sweet and nutritious components of the mess have been used up. What a bowl of «fruit cheese» is like, after half-a-dozen Indians have been eating and spitting for a while, the reader may possibly picture to himself, by the aid of his imagination.

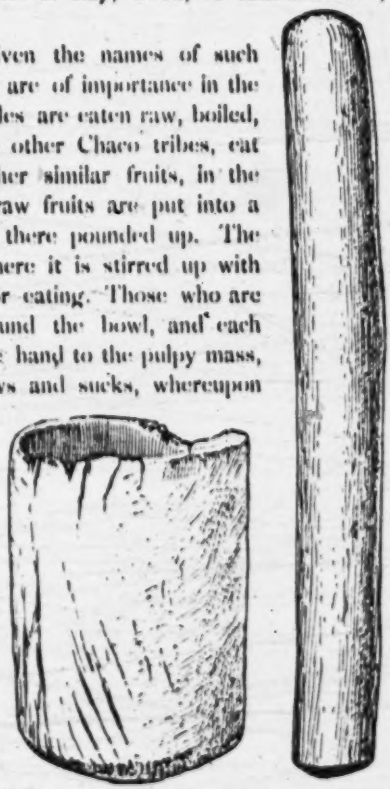

Fig. 122. Mortar and pestle of hard wood, the latter consisting of palo santo. Choroti. Gran Chaco. Bolivia. 1/4. Riksm. 03. 3. 155 and 03. 3. 157.

In another work of mine I have said that the Choroti eat the *fruits*

[1] Nordenskiöld (18), p. 53.

283 Chaco, a circumstance I have pointed out in the foregoing. At its thickest part, the diameter of the spindle should be somewhat larger than the diameter of the hole through the whorl. The thinner end of the spindle is passed through this hole, and the whorl is then slid downwards until it gets fixed on account of the thickness of the spindle (see fig. 143). If the hole has happened to have been made too large, so that the whorl would slip off, the thickness of the spindle immediately below the whorl is increased by the application of a heavily waxed binding (see fig. 142).

286 Personally I have not seen the Choroti do any weaving, but from this tribe Nordenskiöld has described a very primitive method of fillet weaving: »For a loom, the woman used her own body; the fillet she was weaving was fastened to her big toe, and her hand she used as a batten. In this way she was weaving the fillet without using any other implement than her extremities.»[1]

For all that, the Chorotis a do possess weaving implements, which, among other things, is evident from the weaving batten reproduced in fig. 144. It is carved in one piece out of some hard, heavy wood. The transverse section of the handle is oval, and the blade has two rounded edges.

283 The Choroti make excellent ropes of bast (fig. 145), by twining. One such rope, which I bartered off them, is 11.74 metres in length. At one end of it there is a running noose, and it has probably been used as a lasso.

412 439 At the time when I visited the Chaco, iron was still of such rarity that it was but seldom I saw an iron knife among the Choroti. We had brought with us, as articles for bartering, long, Argentine knives, and with them the Indians were highly delighted. These knives were not used by the Choroti for carving wood with, but principally as carving instruments in cutting up meat.

412 The Choroti knife, which is reproduced in fig. 146, is a very primitive tool, with a one-edged blade, about 1.5 mm thick, of untempered sheet-iron. The upper part of the blade is wedged into a partly cleft wooden handle, which is covered

Fig. 144. Knife-like weaving implement (batten) of hard wood Choroti. Gran Chaco. Bolivia. [4]/s. Riksm. 10. 3. 91.

[1] Nordenskiöld (13), p. 111.

a [should be Choroti. -Analyst]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

with the tail skin of a lizard. The blade and handle form an obtuse angle, and the edge has been ground on the outer side of the angle. This peculiar shape of knife corresponds to the shape of wooden knives that have been found in ancient Indian graves on Puna de Jujuy and in Quebrada del Toro.[1]

Fig. 145. Rope, of bast. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 244.

Fig. 146. Knife with one-edged blade of soft iron, and handle of wood, covered with lizard skin. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 189.

Fig. 147. Awl, consisting of the right ulna of some large feline, probably puma. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 183.

The Choroti also use wooden knives, resembling broad-bladed chisels.[2] Knives of this shape, which the Choroti now also make of iron, are principally used for cutting up fish, or for opening and dividing pumpkins, water melons, and other kinds of fruit. For cutting up meat, sharp-edged cane splinters, or — and nowadays most generally — iron knives, are used. As I have previously mentioned, the Choroti also use the sharp-toothed jawbones of the palometa fish (Serrosalmo sp.), as knives for hair-cutting, fig. 84.

[1] See, for example, von Rosen (10), figs. 59, 127—131.

[2] Nordenskiöld (11), figs. 12 and 13.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6 Mataco SI7

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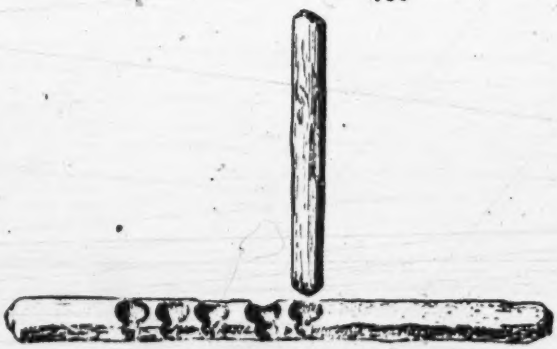

Fig. 148. Fire-drilling implement, consisting of two wooden sticks. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 193.

For scraping and polishing wooden objects, pieces of mussel-shell are used. Formerly, when the Choroti could not obtain iron, all woodwork was produced exclusively by means of fire and mussel-shells. In shaping a piece of wood, the parts that were to come away were burnt in the fire, and the charred parts then scraped off with a sharp-edged piece of mussel-shell.

Nordenskiöld mentions that the Choroti, in the same way as other Chaco tribes, use saws made of hard wood with which they, among other things, saw off the stem and leaves of the, to the Indians so important, caraguatá plant,[1] after having grubbed it up with a fork-like digging stick.

C [412]

Fig. 149. Stems of a liana (Asclepiadaceae), which forms the material of which fire-drilling implements of the Choroti generally are made. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 196.

C [412 32] C 372 [415 23] M [372 415 23]

Awls for working purposes are made of bone (fig. 147). Bone awls are also used for tattooing (see p. 75, 78), magical blood-letting (see pp. 63 and 64), and as weapons of offence (see p. 101).

Like other Chaco tribes, the Choroti produce fire by drilling. Their fire-kindling implement consists of two round-sectioned, dry sticks of wood (fig 148), usually obtained from a species of liana (of the Asclepiadaceae), fig. 149. One stick (the female one), which is thicker, and usually longer, than the other one (the male stick), has one or more bowl-shaped indentations, at

Fig. 150. Tail of armadillo, used as a tinder box. Mataco. Gran Chaco. Argentina. Exactly similar tinder boxes are used by the Choroti. 2/3. Riksm. 03. 3. 572.

[1] Nordenskiold (11), pp. 65 and 66, also (13), pp. 110 and 111.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

826 that the hair in certain magic rites could represent the person from whom it had been taken.[1] We find a similar belief existent among the Choroti who, because of it, carefully burn the hairs that they cut off or pluck out. They also believe that the souls of the dead, as well as evil spirits, are [764] capable of working harm on the living by means of the hair, and on this belief is based the custom of the Choroti women of cutting off this adornment on the death of their husbands.[2] Similarly, the practice universally prevalent among the Choroti of plucking out eyebrows, eyelashes and other hairs of the face, the hairs of the armpits and about the genital parts, is probably due to this belief.[3] When a Choroti Indian takes a scalp, or fixes the scalp lock of a slain foe under his frontlet (see pp. 60, 61 and 103), it is probable that he considers that he has not only succeeded in obtaining a material trophy, but that the possession of the scalp or scalp lock to some certain extent confers upon him power over the spirit of his fallen adversary.[4]

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[412]

Fig. 185. Bone awl for blood-letting. Probably made out of an ulna of a puma. The awl is wrapped round with a red woollen-fillet, to prevent it from penetrating too deeply into the muscles. Choroti. Gran Chaco. Bolivia. 1/1. Kksm. 03. 3. 82.

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412

In the foregoing (pp. 63 and 75) I have mentioned that the Choroti on certain occasions perform a kind of magic blood-letting by means of bone awls. I have also given an account of the Indian conception of the effects of this kind of blood-letting (see pp. 63 and 64). I will now add that I think it probable that the *material* of which the awl consists also plays a certain part.

Fig. 186. Bone awl for blood-letting; also used for tattooing. Probably made from an ulna of a raptorial bird. The awl is wrapped round with grey and red woollen-yarn (the latter nethermost) so as not to enter too deeply into the flesh. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 83.

Nordenskiöld has observed that the Ashluslay, when they are out looking for nests of wild bees, prick themselves above the eyes with a

[1] Even as early as in the Werrend law, mention is made of hair being used in witchcraft.
[2] See page 182.
[3] Karsten (4), p. 10.
[4] Cf. Karsten (4), p. 60.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

wooden awl, so that blood flows.[1] In reply to my question, Nordenskiöld has been kind enough to tell me that he never saw the Indians using awls of any other material than wood for this purpose. On the other hand, both he and I, and other Chaco students, have seen Choroti pricking themselves with bone awls (figs. 185 and 186) when feeling tired. In order to ascertain whether the Indians in making their bone awls gave preference to any particular bone of any particular animal, I asked Professor Lönnberg to try and identify the animals from which the material had been taken for all the bone awls in my collection. Professor Lönnberg very kindly acceded to my request, and here below I give the result of his investigation.[2]

Awl No. 03. 3. 183. Upper part of right ulna of a large feline animal, probably a female puma.
» » 03. 3. 82. » » » left » » » feline animal, probably a young puma.
» » 03. 3. 182. » » » » » » » » (somewhat smaller than the foregoing).
» » 03. 3. 84. Lower part of canon bone of small ruminant (deer calf?).
» » 03. 3. 184. » » » » » » » »
» » 03. 3. 185. » » » » » » » »
» » 03. 3. 83. Probably a fragment of ulna of a bird (raptorial?)
» » 03. 3. 186. » » » » » » » » of a species somewhat smaller than the foregoing.

The remainder of the bone awls that were submitted by me to Professor Lönnberg consisted of fragments, impossible of determination.

Unquestionably, it must strike one as peculiar that out of eight determinable pieces of bone, three of them probably consist of ulnæ of such a ferocious animal as the puma (the killing of which to the Indians is a matter of deadly peril). Another thing, which is in my opinion noteworthy, is that two of the awls probably consist of ulnæ of raptorial birds, and that the three remaining ones all consist of canon bones of some species of small ruminant. In fig. 81 I have reproduced an awl consisting of the jawbone of a Siluroid: this implement, however, at the same time being a kind of stamp for applying red paint to the face. Whilst paying a visit to the Gothenburg Museum, I was, by the courtesy of the Keeper of Ethnography, Baron Nordenskiöld, given the opportunity of going through the collection of bone awls that he has acquired from Indians of the Chaco, which collection now forms part of the Museum. On examining

[1] Nordenskiöld (18), p. 49.

[2] In accordance with letters dated July 2 and 18, respectively. Rockefeller collection of Manuscripts, Volume 1921, letter 1.

412 this material it at once became apparent to me that seven of these awls were similar to those that Professor Lönnberg had identified as being from ulnæ of some large species of feline animal. I obtained permission to borrow these seven awls[1] with a view of ascertaining, if possible, through Professor Lönnberg, from what animals they were derived. After Professor Lönnberg had examined these objects too, I got from him the following report: »From all I can see, the implements herewith returned to you are also manufactured out of ulnæ of puma.»[2]

757 412 In the men's satchels, or bags, that I have acquired from the Choroti, I have as a rule found *several* bone awls, together with, now and again, a wooden awl. This observation of mine is not to be explained away by my having happened to examine Indian carrying-bags which by mere chance contained a number of bone awls, because Nordenskiöld, who lived among Chaco Indians for a much longer period than I did, noticed exactly the same thing. He writes: — »In *every* Choroti or Ashluslay Indian's carrying bag one finds *quite a number* of bone awls, with which he pricks himself when feeling fatigued.»[3] If it were only a question of puncturing the skin so as to make the blood flow, it would of course be sufficient to possess only one bone awl. As we know, blood-letting is resorted to by the Indians of the Chaco for the attainment of various ends. As has been said; when wishing to locate nests of wild bees, they always use a wooden awl. Can it possibly be that the material, of which this particular kind of awl has been made, is taken from some kind of tree especially favoured by the bees in their nest-building? When the Indians, in bow-shooting, draw the arrow towards the ear (see p. 63), and then find that the arm trembles, they jab a bone awl into the arm. It may be wondered if, on those occasions, they make use of the above-mentioned awls made from ulnæ of powerful feline animals, or raptorial birds? When feeling tired after a long march, for instance, the Indians give themselves a prick in the leg. Is it then that bone awls made out of canon bones of young deer are put into use?

It would be very interesting to learn from what animals the material of other bone awls from the Chaco peoples, kept at Swedish and foreign museums, have been taken. It is only by extensive examination in this

[1] The awls are marked B. 393, B. 395, C. 248 (2462), D. 1214, D. 1220, D. 1221 and D. 1222.
[2] Letter dated Sept. 14. Rockstad collection of Manuscripts, Volume 1921, Letter L.
[3] Nordenskiöld (13), p. 49. Italics by von Rosen.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

way, *and by renewed research among the Indians*, that we shall be enabled to obtain a thorough knowledge of their conception of magic blood-letting by means of awls. 757 412

In the foregoing I have mentioned that Choroti bow-staves are sometimes provided with a small skin casing, slipped on, and that on opening one of these casings I found that it contained excrements from some herbivorous animal. It is of course impossible to tell with certainty what the motive was for putting on this skin casing (see pp. 88 and 89), but I think it probable that it was put on the bow for some magic reason. It is noteworthy that it contained excrement. The fact of this being so is a circumstance that, in my opinion, especially points to the casing being of a magical character, for, according to the Chaco Indians' way of thinking, certain excrements possess magic properties and are often made use of in casting spells.[1] 789 411 825

All kinds of illnesses are by the Choroti considered to be caused by evil spirits. As yet, however, we know but little of these Indians' conception of the character and curing of different illnesses. Once Nordenskiöld called in medical aid from a medicine man among the Choroti, and this is how he describes the way in which the medicine man set about it: 753

'On many occasions, in the villages, I have seen the medicine men practising their profession. One day, among the Choroti, when I was feeling a bit seedy, I called one of those gentry to my camp. Giving out that I had a severe pain in the lower part of my chest, I asked him if he cared to cure me. He promised to come to me in the evening. At nightfall he arrived, accompanied by a colleague. They insisted on being left alone with me. Moberg and Andersson were consequently turned out, and sentries were posted so as to prevent anyone unauthorized gaining access to the hut. For a start, they made me strip to the skin, and then lie down. They stroked me with their hands over the chest, the sides of my body and the stomach, and then they spat on me. After that, they set to blowing on me, and then they laid themselves down and sucked hard at my chest, in particular at the spot where I had complained of the pain. After having sucked for a while, they turned away and pretended to vomit. Whatever they vomited up in this way, they did not show me, but, as they squeezed it between their fingers, it looked as if they had been squeezing worms. This performance lasted, I think, the 755

[1] See, for example, Nordenskiöld (13), pp. 95 and 98.

2: Nordenskiöld E-5 (1908-1909)1919
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duster we may conclude that it is one of the cultural elements that the Chaco Indians have received from the mountain culture. I have in my private collection a beautiful bronze knuckle-duster which, on somewhat uncertain authority, is said to have been found in the district of Lima (A). In the Museum of Ethnology at Berlin there is a wooden knuckle-duster found on the coast of N. Chile (B). LEHMANN-NITSCHE[1]) gives a drawing of an object from an old grave in the Puna de Jujuy (D) which appears to me to be a knuckle-duster of this kind.

Throughout the N.W. Argentine (E) numerous bronze knuckle-dusters have been found[2]). LATCHAM[3]) gives drawings of some from Sta. Maria (z) in N. Chile. BOMAN[4]) also mentions a knuckle-duster, found near Taltal (z) in Chile. The same author gives particulars of a knuckle-duster found at San Juan (F) in the Argentine. This, like those found in Chile, is of bronze. COBO[5]) and ACOSTA[6]) instance knuckle-dusters from the Incas (18), used in certain religious ceremonies.

The distribution of the knuckle-duster is, as we see, very similar to that of the spade, though less extended.

The *bone-dagger*, too, is a rare weapon in S. America. We find it in the Chaco among the Choroti and Ashluslay. Besides this, it is only known from the Bororó[7]), from the district of Chuquimayo in N. Peru[8]) and from the extreme S. of Chile[9]). I have counted the bone dagger among the

A
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[1]) Pl. 3, fig. 38.
[2]) BOMAN, p. 136, LAFONE QUEVEDO (2), p. 285, AMBROSETTI (3), p. 250.
[3]) (2) p. 44, fig. 7—8.
[4]) p. 136.
[5]) Vol. 4. p. 86.
[6]) Lib. V. Cap. IV.
[7]) PRIČ a. RADIN Pl. 30, fig. 13.
[8]) PALOMINO, p. 141.
[9]) MEDINA, p. 138.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XI.

Tools.

A
C
412 In the interior of the Chaco there are, as we have already pointed out, no stones at all. Consequently the Ashluslay and the Choroti have no stone tools, their primitive tools being made exclusively of bone, teeth, shells, and hard wood.

As knives they use the sharp-toothed *jaw of the palometa* (round pompano). These knives are used by the Indians of S. America whereever these fish occur, and where the Indians still use primitive tools. Thus, KARL V. D. STEINEN mentions them for the Indians of the upper R. Xingú.

Bone awls are in general use among the Ashluslay and the Choroti, though rather as bleeding instruments than as tools. The bone awl belongs to the objects whose distribution is very difficult to study, as it soon goes out of use when the Indians have obtained iron from the whites. I have seen it, apart from among the above tribes, among the Yuracáre, Chiriguano, Tapiete, Mataco and Toba. A special kind of bone awl is used by the Choroti and the Ashluslay for removing sand fleas (chigoes). I have not seen them elsewhere. [767]

Pieces of shell are used by the Choroti and the Ashluslay as scrapers. It is, of course, impossible to draw up a map of the distribution of such tools.

Very characteristic of the Indians of the stoneless Chaco, the Choroti, Ashluslay, Tapiete, Lengua[1]) and Mataco,

[1]) Grubb, p. 75.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
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A C 412 are their knives, saws or scrapers and awls of very hard wood. The knives (fig. 12) are used, for instance, for cutting up fish and fruit, the saws for cutting off caraguatá boughs and for grating the «Mandioca del campo» (manioc). Such tools of wood are unknown among now living Indians, save in the Chaco. Occasionally flat bone knives are seen. I have seen them among the Tapiete and the Atsahuaca, as well as among the Choroti, and the Ashluslay. The wooden tools were originally made in this way: when there had been a

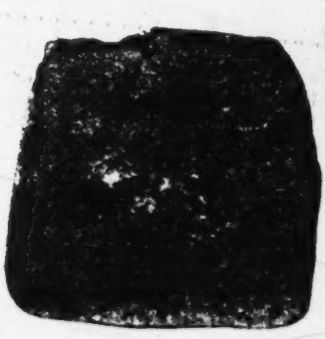

Fig. 13. Iron Knife, Choroti. G. M. (D. 1027) 1/3.

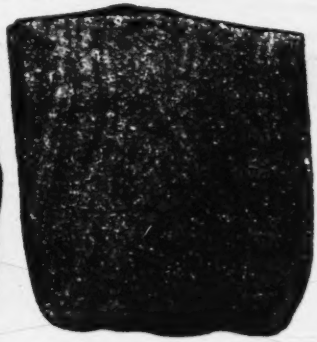

Fig. 12. Wooden Knife. Choroti G. M. (D. 1025) 1/2.

forest fire, suitable pieces of wood were selected, which were then shaped by means of the fire and pieces of shell. They are now cut by knives obtained from the whites.

A C [439] By their migrations to the sugar factories in the Argentine, the Chaco Indians have obtained many iron tools. Where iron is still rare, all the pieces of iron are preserved that can be utilized. In Fig. 13 is shown a piece of iron used as a knife, it having received a shape similar to that of the original wooden knives.

The *wooden knives*, as we have seen, are of a square shape. This shape may possibly not have originated in the Chaco. I have found similar stone knives (Fig. 14) in my excavations

2: Nordenskiöld E-5 (1908-1909)1919
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in a burial ground in Caipipendi in the Chiriguano territory, and BAESSLER[1]) found knives of similar shape, now of stone, now of a copper alloy at Chancay on the Peruvian coast. Bronze knives of this type are also mentioned by LATCHAM[2]), from Caldera in Chile and AMBROSETTI from N. Argentine[3]). I found a bronze knife of this kind at Quiaca in Peru[4]). The knives discovered during archaeological excavations are broader than the wooden ones now in use in the Gran Chaco. Owing to the resemblance in shape that exists between the wooden knives in the Chaco, the stone knives of Caipipendi and the stone and copper or bronze ones from the culture zone in the west, I consider this form of knife, for the present at least, to belong to the cultural elements which reached the Chaco from the culture of the mountains.

Fig. 14. Stone knife, found at Caipipendi in Bolivia. R. M. (K. 101) 1/4.

The *toothed scraper* also seems to be (Fig. 15) a western cultural element. AMBROSETTI[5]) depicts and describes some from La Paya, and assumes that they were used as carding-tools. Very possibly they had a different use in the Chaco from what came under my notice. AMBROSETTI

a. b.

Fig 15. Toothed scrapers of wood. Ashluslay, a — G. M. (B. 247) b — G. M. (B. 233) 1/4.

[1]) p. 41, fig. 71—75.
[2]) (2), p. 171, fig. 5.
[3]) (3), p. 103.
[4]) NORDENSKIOLD (3) Pl. 2, fig. 21.
[5]) (6) Vol. 2. p. 483. fig. 251.

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SK6 Choroti SK6
Ashluslay SK5

found them in four female graves and in a child's grave. Three of AMBROSETTI's «saws» are adorned with carved human heads. I found a similar object of stone (Fig. 16) which may have been used in this way, at Caipipendi in the Chiriguano territory.

Wooden awls, which I only know from the Chaco, are used by the Choroti and Ashluslay for letting blood.

Fig. 16. Toothed stone scraper. Caipipendi, Bolivia. R. M. (K. 194) 1/1

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashlustay SK5

XIV.

Utensils used in preparing and consuming Food.

a). *Utensils for preparing flour.*

The Chaco Indians here dealt with understand how to prepare flour, as most of the Indians do. For this purpose they use small wooden mortars with pestles of the same material. Occasionally the Ashluslay quite simply use a pit in the ground as a mortar.

Two ways of grinding corn may be said to exist in S. America, in one the corn being crushed in a mortar, while in the other it is ground between stones or between a stone and a wooden block. The distribution of the two methods may be seen from the following table.

No. on the map.	*Tribes which use wooden mortars.* (See Map 10).
61, 48.	Tribes on the R. Negro, R. Yapura and R. Içá, KOCH-GRÜNBERG (2); WHIFFEN[1]), p. 141.
64.	Huari.
40.	Guarayú, Guarayos.
28.	Bakaïrí, STEINEN (3), p. 363.
90.	Chipaya, SNETHLAGE, p. 94.
15.	Kayapó, KRAUSE, p. 388.
13.	Karajá, KRAUSE, p. 254.
50.	Šavajé, KRAUSE, p. 358.
4.	Chiriguano.
21.	Caingúa, OUTES Y BRUCH (5) p. 95.
3.	Tapiete.

[1]) According to WHIFFEN the mortar is only used for pulverizing coca leaves.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

with stones in wooden troughs, or on wooden blocks, or with wooden blocks in wooden troughs.

Both the Choroti and the Ashluslay sift the corn through a net, and not therefore through a sieve specially made for the purpose. Of the tribes I got to know on my travels, the Toba, Mataco and Tapiete generally employ this method. All the others[1]) used baskets. The latter include the Chiriguano and Chané.

Pockets are also used for sifting. Honey is strained by the Ashluslay through a specially prepared straining cloth of Caraguatá.

As I have mentioned, the Ashluslay cultivate manioc. So do the Choroti, and probably some of the Mataco Indians. The cultivation of manioc must have reached the Chaco from the north or east. The boards used for rubbing the manioc root, are usual among the Ashluslay and Choroti Indians. These boards, which consist of a piece of palmwood into which numerous splinters of wood have been driven, clearly belong to the cultural elements that the Chaco Indians obtained from the north or east. Among a few tribes in N.E. Bolivia a prickly root of a palm is simply used as a grater, these natural graters probably representing the original type. In some districts sharp splinters of stone, instead of wooden splinters, are driven into the grating board.

Fig. 19. Manioc-Grater, Ashluslay. G. M. (A. 1662) 1/3.

I. The following tribes use a prickly root of a palm as a grater: (62) Chacobo, (22) Yuracáre, (63) Yamiaca and (X) Yurúna.[2])

[1]) With the possible exception of the Huari.

[2]) KLETKE, p. 683.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay. SK5

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II. The following tribes use a board into which wooden splinters have been driven:

A C [252 418]

(2) Ashluslay (Fig. 19), (1) Choroti, (28) Bakaïrí[1]) and Suyá[1b]), (XI) Yamamadi[2]), (13) Karajá[3]), (61) Boro, Vitóto, and other tribes between the R. Putumayo and the R. Yapurá[4]) (IX) Colorados[5]) and (5C) Nambiquara.[6])

III. The following tribes use a board with stone splinters driven into it: (38) Tupinambá[7]), (74) Sáliva and other tribes on the R. Orinoco[8]), (47) Patamona, Macusi, Arecuna and other tribes in Guayana[9]), (48) Sinsí and other tribes in N.W. Brazil.[10]), (V 2) Indians on the R. Guainia[11]), (V 5) Makiritare[12]), (55) Kalina[13]), (31) Trio[14]) (V 5) Yekuaná and Guinaú on the upper R. Ventuarí and R. Merewarí.[15])

IV. Without specification of the material: (20) Paressi-Kabiši[16]) and (V 3) Caripon at Yapoco[17]).

The (59) Chrichana[18]) have grating-boards with teeth instead of stones. The Waika[19]) use rough slabs of granite

[1]) v. d. Steinen (2) p. 124.

[1b]) do. p. 206. Not marked on the map.

[2]) Rio Purus, Ehrenreich (2) p. 55 »Palm wood spikes.«

[3]) Krause p. 254. Spikes of »Prejauva wood«.

[4]) Whiffen, p. 141. Palm spikes.

[5]) Rivet (3), p. 101.

[6]) Roquette-Pinto (2), p. 185.

[7]) Lery, p. 110. Thevet, p. 302.

[8]) Gilij, Vol. 2, p. 304. fig.

[9]) Im Thurn, p. 200, Museum Material G. M. etc.

[10]) Koch-Grünberg (2) Vol. 1. p. 77 seq. Vol. 2. p. 205.

[11]) Ernst, p. 527.

[12]) Ernst p. 528, Krickeberg, p. 89. fig. 6.

[13]) Ten Kate, p. 3.

[14]) Goeje (2) p. 5.

[15]) Koch-Grünberg (communicated by letter).

[16]) Max Schmidt (4) p. 206.

[17]) »rapent sur vne pierre ou sur n bois falct en facon de lime«. Mocquet, p. 83. »Ce pays d'Yapoco est à plus de 120 lieues du pays des Toupinambous.« Mocquet, p. 89.

[18]) Barbosa Rodrigues p. 131.

[19]) Koch-Grünberg (4), p. 200.

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Ashluslay SK5

originally from the mountain area of civilization, as FRÖDIN and myself have endeavoured to show. I shall return to this problem later on.

The spindles of the Choroti and Ashluslay are, as was mentioned, provided at the upper end with a knob round which the wool to be spun is fastened. This invention does not seem to be a product of the mountain civilization, but to have been one of the few elements of civilization which the Indians of the Chaco have received from the northern and western parts of S. America. Probably it came to the Chaco with the Guarani Indians, since the Arawaks at Mojos north of the Chaco have spindles of the Bororó type. It is indicated on the map which tribes in S. America have spindles of this kind. There are some S. American tribes whose spindles are provided with a hook instead of a knob at the upper end.

Sewing, or the use of the eyed needle.

The Indians of the Chaco have plainly learnt the use of the eyed needle from people of the the n ountain civilization. RIVET and VERNEAU[1]) have given a summary of the places where eyed needles have been found in archaeological excavations. From this it appears that, previous to its introduction by the whites, the eyed needle in America had a markedly western distribution. (Map 36). RIVET and VERNEAU mention the following places where metal needles have been found: — Neighbourhood of Cañaris, Ecuador, Piura, Chuquitanta, Marquez, Ancon, Paumalca (valle de Chiclayo), Trujillo, Huadquiña and Choquequirao in Peru (K, A), (I) Tialhuanaco, (I) Titicaca Island, (G) Queara, (Z) Tocarji and (Z) Asnapújio[2]) in Bolivia, (D) Casabindo, (E) Santa Maria, (E) La Loma (not far from Puerta del Belen) in Argentina. Rivet and VERNEAU[3]) quote, furthermore the following places for bone needles: — (L) Cañar (Ecuador), (E) La Paya (N.

[1]) (4) p. 284.

[2]) Only a few of these places are shown on the map.

[3]) (4) p. 252.

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Argentina) and (H) Neighbourhood of Buenos Aires. Wooden needles have been found at (D) Casabindo and (D) Sayate in the Puna de Jujuy, at (C) Calama in the Puna de Atacama[1]) and at (B) Arica[2]). I have found[3]) wooden needles in a grave in a cave at (G) Quearatal in Bolivia and at (G) Corani in Peru.

At (B) Arica UHLE[4]) found large needles of wood and smaller ones of thorn. REISS and STÜBEL[5]) depict a sewing-needle «out of a large thorn» from Arica.

Among the Indians whom I have visited on my travels the (1) Choroti, (2) Ashluslay, (6) Mataco, (7) Toba and (3) Tapiete use home-made needles. These are made of bones, wood or the thorns of a plant. CREVAUX[6]) mentions bone-needles from (31) Roucoyenne (Ojana), and KRAUSE[7]) found them among the (13) Karajá. I have seen a bone-needle from the (30) Guayaki in the Museum of Ethnology at Berlin. KOCH-GRÜNBERG mentions bone-needles from the (48) Káua on the Rio Aiarý[8]) and the (48) Kobéua on the Rio Cuduiarý[9]); ARMENTIA[10]) from the (49) Araona. K. v. d. STEINEN found no eyed needles among the Indians on the Rio Xingú. From the Mehinakú, one of the Xingú tribes, RADIN[11]) mentions needles consisting of two light, thin pieces of wood held together by very fine fibres. At the upper end a slit is left open.

[1]) BOMAN, p. 508.
[2]) EWBANK, Pl. 10, fig. 6.
[3]) NORDENSKIÖLD (3), p. 18 and 34.
[4]) (6) p. 12.
[5]) Vol. 3, Pl. 83, fig. 13.
[6]) p. 202.
[7]) p. 206.
[8]) (2) Vol. 1, p. 117.
[9]) (2) Vol. 2, p. 169.
[10]) p. 61.
[11]) p. 932.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

(material for roofing huts), the Indians are apt to build their villages in the proximity of some grove, or forest, of palms (›palmar‹). As a case in instance, the Choroti village at Tatarenda was situated quite close to a palm grove, and not very far from a largish palm forest. It is of importance that algaroba trees should be growing in the neighbourhood, as the fruit of this tree plays a prominent part in the food arrangements of these Indians.

The huts are of a very primitive character, and are built in the following manner; With a digging-stick (fig. 27) of hard, heavy wood, a succession of holes is dug, or jabbed, in the ground, so as to form a circle with a diameter of 2 metres or upwards. In each of these holes is planted an unlopped, bent-grown branch, thick end downwards, so that the tips of the branch point towards the centre of the circle. By this means a cupola-shaped frame is formed (fig. 26). This frame is covered with a thick layer of palm leaves and grass (figs. 16, 25), unless palm leaves are difficult to obtain, when the hut will be covered with grass only, although huts thatched in this way have less rain resistance. But even the most carefully built Choroti huts are, however, poor enough dwellings which, in any heavy downpour of rain, are unable to keep those inside them from a wetting.

Fig. 18. A man holding a pestle in his hands. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

The huts have one, or even two, entrances, about one metre in height (figs. 16, 25), but huts of the largest size are sometimes provided with several entrances. A sort of porch, constructed of branches and grass, may occasionally be built out from the entrance. When several huts are close together, they may not unfrequently be connected with each other by means of covered passages, or tunnels, built similarly to the huts.

The latter do not contain many utensils. Ranged along the wall, bowls made of gourd shell, a few clay vessels and a wooden mortar, are generally seen. In prettily knitted net bags of spun caraguatá fibre,[1] the Choroti keep all manner of small articles, such as mussel-shell spoons,

[1] Caraguatá, or chahuar (chaguar), Bromelia serra, is, as I have already pointed out, especially common in the Chaco.

wooden sticks for fire-driving, toilet articles, magic rattles, etc.

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Fig. 25. Huts. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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Fig. 26. Hut frames made of tree branches. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[p. 46 is Hawk]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

237 and tied with woollen-yarn on to a small stick or cane splinter (fig. 48),
292 for sticking into the fillet of the frontlet. The Indians take very great
302 care of their feather ornaments, and the easily damaged ostrich plumes
[415] (see front-page plate and fig. 49) are kept encased in bamboo. The plume-case reproduced in fig. 50 consists of a piece of bamboo, 50 cm long and 2.5 cm wide. At the upper joint there is a hole, 3.2 cm long and 1.2 cm wide, through which the partition wall has been removed. The bamboo chip cut out in making the hole near the bottom end, is tied over the hole with a thin strip of bast; whereas the upper hole is without such a lid. The lower hole differs from the upper, in that its edges, as well as the edges of the lid, are painted red. I presume that neither of these holes has been made exclusively for the purpose of facilitating the removal of the wall within the joints, but that they have also served to make easier the taking out of the feathers from the case. The painting red of the holes and lid edges has, as I shall show further on, probably been done with magic intent, for the safeguarding of the plumes.

Fig. 44. Frontlet of palm leaf, with chin strap. Choroti. Gran Chaco. Bolivia. 1/2. Rikem. 03. 3. 14.

Fig. 45. »State» frontlet, made of white and pink feathers and down from the pink »spoonbill». Choroti. Gran Chaco. Bolivia. 1/2. Rikem. 03. 3. 15.

The curious object seen in fig. 51 is, it has been stated, meant to be used as an ornament at dances; it is made out of the leaf of a fan palm (Copernicia australis). It seems to me,

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

who was wearing it, for, according to his statement, this ornament originally belonged to an enemy killed by him (Cf. the »scalp lock» on the Indian in fig. 42). 302 727

On the Spaniards' first coming to the Inca kingdom, there was, naturally, in that country much that aroused their great astonishment. Among 101

415 237 824

Fig. 50. Bamboo casing for keeping ostrich feather head ornaments. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 10. 3. 18.

Fig. 51. Palm leaf object, said to be meant for wearing in a frontlet. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 99.

other things, the strangers found it especially remarkable that Peruvian men of noble birth were wearing immense, often metal-mounted wooden discs, or hanging ornaments, in their pierced ear-lobes, which were distended to a monstrous size. This custom occasioned the Spaniards to give the Peruvian nobles the nickname of »orejones» — which might be

304 pattern with the cactus needles, or bone awl, until beads of blood appear, when the soot-mingled saliva is rubbed into the punctures. After healing, the tattoo marks assume a bluish colour.

302 At dances, lovers' meetings, and other important occasions, men and women paint their faces (figs. 62, 67—70 and 74—76). Face-painting may be done either in red (figs. 67—68 and 74—76) or in black (fig.

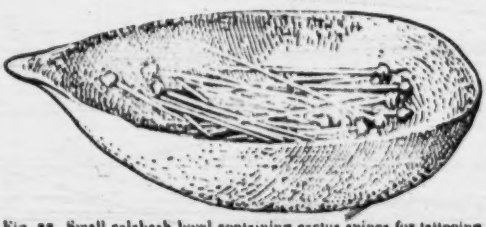

Fig. 77. Small calabash bowl containing cactus spines for tattooing. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 87.

Fig. 78. Red paint, ready prepared for face-painting. This lump of paint, which is wrapped in a sheath of palm leaf, may possibly have reached the Choroti by barter from the Chiriguano. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 104.

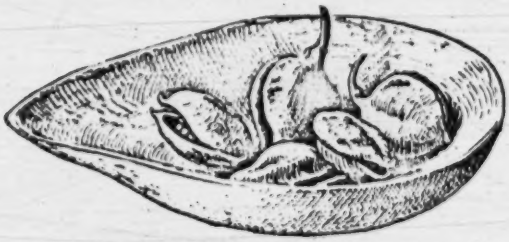

Fig. 79. Small calabash bowl containing fruits of Bixa orellana. From the seeds of these fruits colour is prepared for face-painting. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 103.

Fig. 80. Miniature bowl of wood, holding colour seeds. The bowl and the seeds have possibly been obtained by the Choroti through barter with the Chiriguano. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 180.

69), or in both red and black (fig. 70). Painting the face in red is commonest. The black paint consists of soot and saliva, whilst the red colour (fig. 78) is prepared from seeds of Bixa Orellana (fig. 79). These seeds are usually obtained by barter from the Chiriguano, and are carefully kept by the Choroti in small calabashes. I have also seen miniature wooden bowls (fig. 80) used as receptacles for these colouring seeds after they have been taken out of the follicle.[1] The soot is usually kept in a

[1] Owing to a mistake having occurred as to the identity of seeds, in my first treatise on the Choroti I have erroneously stated that the red paint used in face-painting is made from the seeds of Caesalpina melanocarpa.

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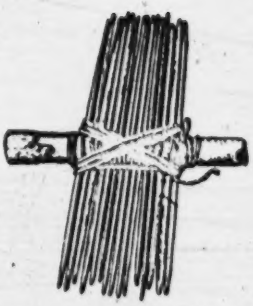

Fig. 85. Split-cane comb. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 74.

Fig. 86. Wooden comb, carved in one piece. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 70.

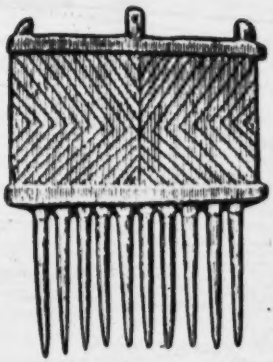

Fig. 87. Wooden comb, carved in one piece; the handle carved on both sides into angular ornament. Choroti. (This comb may possibly have been made among the Churiguano.) Gran Chaco. Bolivia. 2/3. Riksm. 10. 3. 28.

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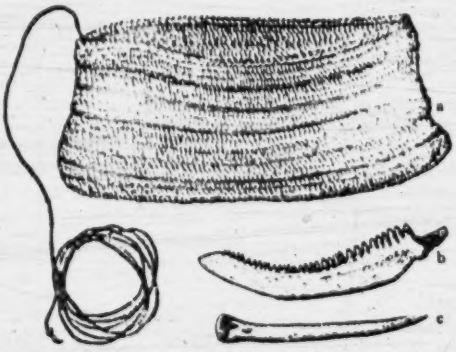

Fig. 88. Miniature bag (a) of undyed (greyish-white), brown, yellow, and black caraguatá fibre. When the author obtained the bag, it contained a stamp for face-painting (b) and a small bone awl for tattooing and blood-letting (c). Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 101.

older cultural element. The split-cane comb in fig. 85 consists of a piece of cane, about 7.2 cm long, into which a split has been made from one end, so that only 2 cm of the other end of the cane are left intact. The insides of the two legs forming this crotch have been pared down so that the space between the legs of the crotch equals the thickness of the comb teeth at their middle, i. e., in this case about 4 mm. In the fork of this crotch the teeth, 1 to 2 mm thick, have been placed and secured by tying, with their flat sides together. This class of Choroti combs are generally of a construction differing somewhat from the one described, in that the cane has not been split from one of the ends in order to afford room for the teeth, but, instead, there is usually in the middle of it a recess, into which the teeth are fixed in the way I have described.

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skinning or gutting, and are usually eaten with entrails, excrement and all. When the Choroti eat the entrails of larger animals, they do not first rinse them out, but are, at best, content with squeezing out the contents. Nordenskiöld has seen them eating intestinal contents as spinach together with the meat.[1] Fish is grilled, either by being laid on glowing embers, or tied between two sticks stuck into the ground by the fireplace.

As servers for food are used bowls of clay, wood, or calabash shell, or merely large, fresh leaves.

In foregoing chapters I have given the names of such plants, wild as well as cultivated, as are of importance in the food supply of the Choroti. Vegetables are eaten raw, boiled, roasted or dried. The Choroti, like other Chaco tribes, eat the fruits of the algaroba, and other similar fruits, in the following, rather original way. The raw fruits are put into a large wooden mortar (fig. 122), and there pounded up. The pulp is put into a calabash bowl, where it is stirred up with water, and the dish is then ready for eating. Those who are about to partake, squat down around the bowl, and each individual helps himself with his bare hand to the pulpy mass, which he puts into his mouth, chews and sucks, whereupon he spits his mouthful of mush back into the bowl. Another mouthful is taken, and in due course spat out, and so on. This is repeated by all the participants of the meal until all the sweet and nutritious components of the mess have been used up. What a bowl of »fruit cheese» is like, after half-a-dozen Indians have been eating and spitting for a while, the reader may possibly picture to himself, by the aid of his imagination.

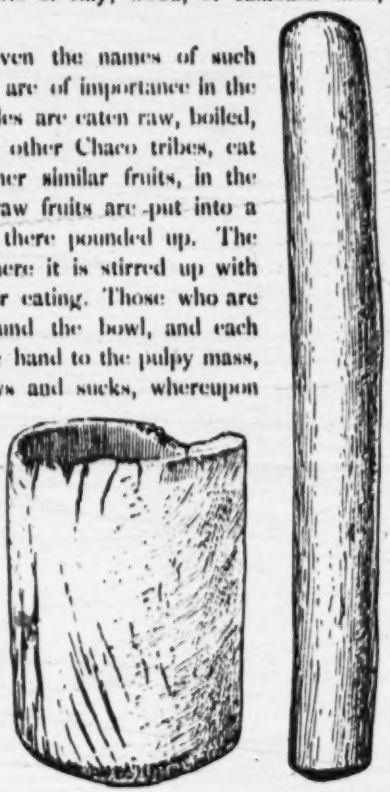

Fig. 122. Mortar and pestle of hard wood, the latter consisting of palo santo. Choroti, Gran Chaco, Bolivia. 1/6. Riksm. 03. 3. 135 and 03. 3. 137.

In another work of mine I have said that the Choroti eat the *fruits*

[1] Nordenskiöld (18), p. 53.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

or large calabashes, to ferment. One certain night, I was present at a 273
beer-fermenting in a Choroti village. Proceedings commenced by two men sitting in the men's club house on either side of the fire, singing, with their backs to each other, and beating time with calabash rattles. After a while they continued this round about the hide in which the brew was fermenting. A man and a youth were singing, accompanied by a rattle, turning their faces up to the moon. Elsewhere, here and there, other men were bawling and plying rattles. Then the earthenware drum was brought

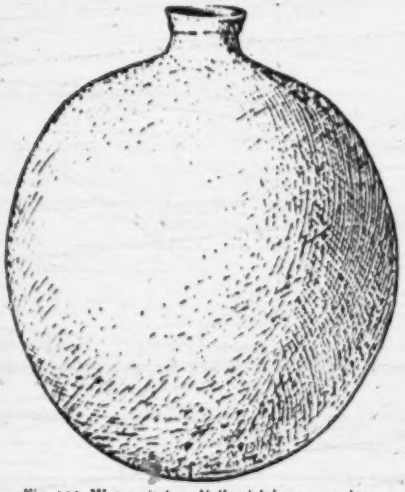

Fig. 123. Water pitcher. Yellowish brown earthenware. Choroti. Gran Chaco. Bolivia. 1/4. Riksm. 03. 3. 145.

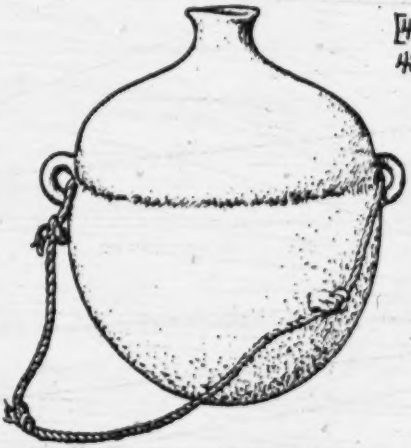

Fig. 124. Water pitcher with carrying cord of caraguatá. Reddish-brown earthenware. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 146.

out, and placed on a ring formed of straw. Monotonous drum beats thereupon gave accompaniment to the singing. This stopped about midnight, and there was a rush down to the river where some fishing was done, with a fairly good result. The fish was then grilled and eaten. This night supper having been satisfactorily discussed, singing was resumed and went on, supported by one drum and four rattles. The songs seemed to me to consist of nothing but refrains, something like: 'huh, huh, huh, huh, huh, lah eh lah, huh, lah eh lah, . . . huh, huh, huh, lah eh lah'. The singing was at first low, then suddenly rising in loudness, then again subsiding low. Many were raucously bellowing in unison. When one lot

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

273 of singers were tired out, others took their turn. In the morning there was some more fishing, and for breakfast was drunk the tusca beer that had been made with so much trouble, after having been strained through a dirty bag, and served up in calabash bowls. The Choroti believe that by singing they hasten the fermentation of the beer.

The tusca beer is of an acidulous, refreshing taste, but has a sickly smell.

The fruits of the chañar are boiled, whereupon the mixture is allowed to ferment.

The fruits of the algaroba are ground, and warmed up in water, then, like the foregoing, the brew is left to ferment in huge, filthy, calabashes, or in very large troughs of the wood of the bottle-tree.[1] I have seen the Ashluslay preparing yeast by chewing part of the ground algaroba, and then spitting it out into the rest. Chañar beer is of a sour-sweet, somewhat nauseous, taste; algaroba beer is good. The latter has a sweet, somewhat astringent, taste. When long fermented, it is highly intoxicating. Maize beer I have seen brewed here. It is especially well known to a great many tribes in South America. It has a pleasant and refreshing taste.»[2]

271 When, during their wanderings, the Indians of the Chaco do not come across any rivers, lagoons or wells, and thus find themselves threatened by a lack of water, they collect the water that, after rain, has gathered at the base of the leaves of the caraguatá plant, where it will keep fresh for many weeks.[3]

271 [415] 482 The Choroti fetch and keep water in large, oval, sometimes spherical, earthenware vessels. When these vessels, like the one reproduced in fig. 123, are without handles, they are carried on the back by means of a caraguata net, the carrying cord of which is either placed across the forehead or across the chest. Water pitchers are, however, as a rule provided with two vertically placed handles, and also a shallow groove which runs through the latter, the whole being designed to give a hold to the carrying cord (see fig. 124). The cord is rested across the forehead

[1] Chorisia insignis.

[2] Nordenskiöld (13), pp. 89—91.

[3] Professor von den Steinen writes of the Chaco Indians of northern Chaco that they collect water from the caraguatá »in denen sich auf dem Grunde des Blätterkranzes das Regenwasser ansammelt und Monate lang verhältnismässig frisch erhält» von den Steinen (1), p. 336. See also Grubb (1), pp. 95 and 96.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

or chest of the water carrier.[1] When the pitcher has been filled with water, its mouth is closed with a stopper of grass or leaves.

The cooking pots, which consist of burnt clay (figs. 125 and 126), are also used for roasting various vegetables. Pots of this kind from the Choroti are sometimes given wart-like decorations. These are either placed in rows some distance apart from each other (fig. 125) or in rows close together (fig. 126). This manner of ornamenting clay pots is of extreme antiquity in the New World, and occurs on grave finds right up through North America.[2] The little protuberances on the pot in fig. 125 have been produced in a different way to those on the handleless pot in fig. 126. On the case of the former, they consist of small clay pellets which have been stuck on the pot before burning, whilst the protuberances on the latter probably have been pressed up out of the wet clay by the potters fingers.

Fig. 125. Cooking and roasting pot of earthenware burnt black. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 150.

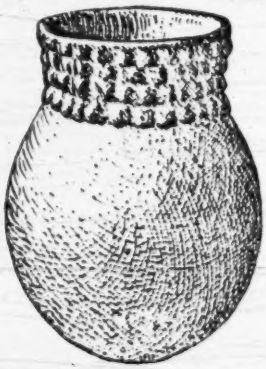

Fig. 126. Cooking and roasting pot of earthenware burnt black. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 10. 3. 54.

All pottery is made by women. The clay is mixed with powdered potsherds, then well kneaded and formed with the hands into rolls, as thick as a finger, with which the pot is built up.[3] When this has been completed as to its shape, its surface is polished by means of a mussel shell or a

[1] Water-drawing and carrying is exclusively a work for women.

[2] See, for example, Holmes (1), pl. XI, fig. g, and Moore (3), fig. 42.

[3] Cf. figs. 217 and p. 214. On the subject of Indian pottery-making, see for example Holmes (1), and Nordenskiöld (10).

323 smooth wooden stick, and, if desired, the above mentioned wart-like
[531] ornaments are then put on. Painted clay vessels are not found among the Choroti.

● 415 For holding water, beer, and other fluids, the Choroti use not only
531 clay vessels but also calabash bottles. Small calabash bottles (figs. 127 and 128) are used for keeping toilet articles, such as colour seeds, beads, and other things. Such articles are also kept in boxes of calabash (fig. 129). Flour is kept in large calabash boxes (fig. 130). Of calabash shell are also made bowls or dippers (fig. 131), and spoons (fig. 132).

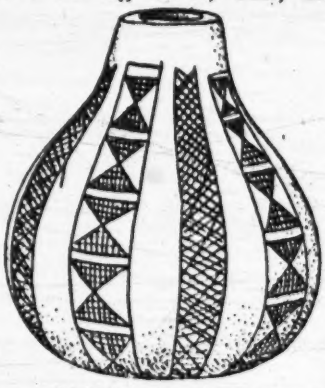

Fig. 127. Calabash bottle with incised ornament. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 172.

Fig. 128. Calabash bottle inlaid with turquoise coloured glass beads. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 175.

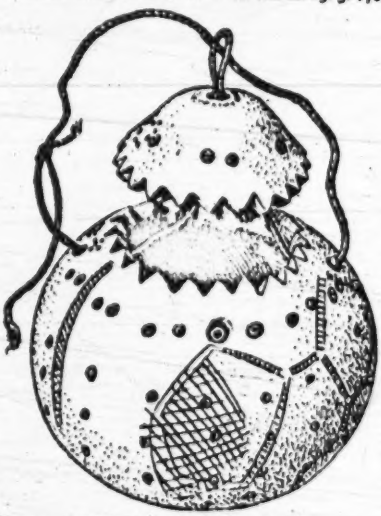

Fig. 129. Calabash box, inlaid with glass beads, and with carved ornament. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 67.

Fig. 130. Calabash box with carved ornament. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 176.

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Bottles, boxes, bowls, dippers and spoons, of calabash, are often ornamented in some way or other. Small calabashes (figs. 128 and 129) for toilet articles are inlaid with beads, and on the latter there is also carved ornamentation. The bottle (fig. 127) and the box (fig. 130) have likewise been decorated by carving, but the ornamentation on the dipper (fig. 131) has been produced by burning. Occasionally ornamentation of calabashes has been effected both by carving and burning, an example of such composite technique being the spoon in fig. 132. The ornamentation is sometimes regularly arranged, figs. 127 and 132, but it often seems to have been placed without any plan whatever, as in figs. 129 and 131. According to investigations by Nordenskiöld and Karsten, the latter kind of ornamentation may not infrequently possess an especial significance; representations of human beings, animals, roads, fields, forests, and so on,[1] and its purpose is probably not only decorative but also magical.[2]

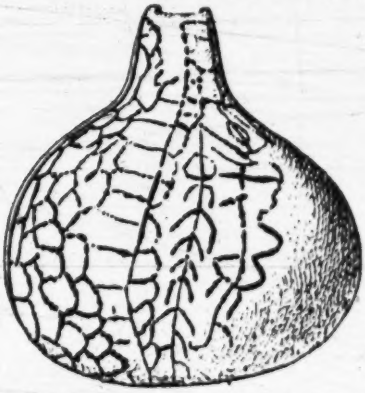

Fig. 131. Dipper, of calabash, with ornament burnt in. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 164.

Fig. 132. Ladle, of calabash, with ornament both carved and burnt in. In the figure, the latter are shaded. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 166.

Many primitive peoples, in the Old World as in the New, use mussel-shells for spoons. The Choroti have spoons consisting of one of the halves

[1] Cf. Nordenskiöld (13), figs. 62 and 63.
[2] Karsten (3), p. 179.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

415 of a river mussel (fig. 133). These mussel shell spoons are seldom as large as the specimen here reproduced, which has a length of 14 cm.

I have seen neither food dishes nor spoons, made of wood, among the Choroti, but nowadays, at least, such are used by them.[1]

285 415 Among the Choroti I saw only one single piece of basket work (fig. 134). It consists of a small basket of the same shape as a kind of pot, which is common in the Chaco (see cooking pot in fig. 192), and it is probably only a direct copy, made in sport, of a clay pot; otherwise, basketry is unknown to the Choroti, and it is therefore probable that the object in question has either found its way to these Indians from the Chiriguano, or that some Choroti, having seen basket-weaving in a Chiriguano village at some passing visit, subsequently has attempted to produce, some similar work himself. It should be noted that the weaving technique in the basket here reproduced is the same as the one used by the Chiriguano.

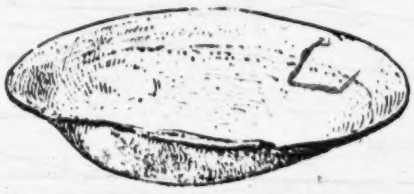

Fig. 133. Spoon, consisting of a mussel shell. Choroti. Gran Chaco, Bolivia. 1/2. Riksm. 03. 3. 107.

[71]

286 415 The Choroti keep no inconsiderable part of their goods and chattels in large, nearly oval, knitted bags of caraguatá yarn (figs. 135 and 136). These bags are especially useful when the tribe is journeying or migrating. They are carried by the women in such a way that the tape or string within the ends of the bag is placed across the forehead, whilst the bag rests against the carrier's back. The carrying cord over the forehead keeps the bag from slipping down the back. For carrying water pitchers and other vessels of earthenware or calabash, the Choroti use carrying nets. On page 118 I have described the way in which these are used.

[285] [482]

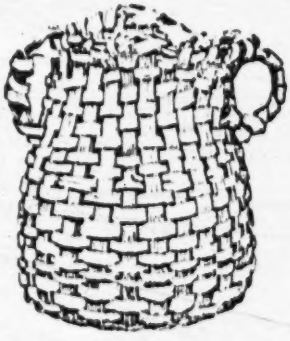

Fig. 134. Basket, Choloni(?). Gran Chaco, Bolivia. 1/2. Riksm. 03. 3. 144.

For everyday use the men have a kind of

[1] Nordenskiöld (11), pp. 86—90.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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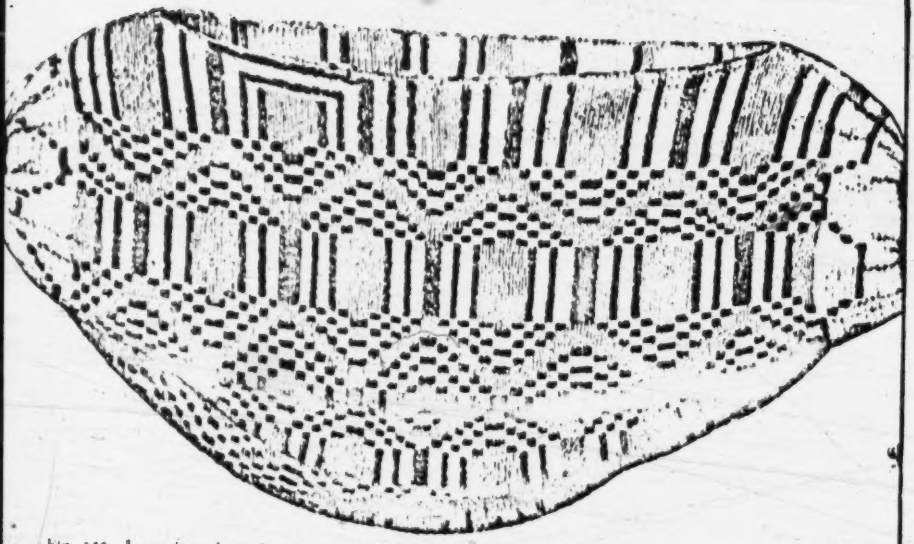

Fig. 135. Large bag, knitted of brown, black and yellowish white (natural colour) caraguatá fibre yarn. Choroti. Gran Chaco, Bolivia. $^{9}/_{6}$. Riksm. 03. 3. 134.

smaller caraguatá bags of the shape seen in figs. 137 and 138. These bags are carried by a string or narrow strap laid over the shoulder (see the man with a bow, fig. 96) or tied to the belt, and in them are kept a variety of articles that the Choroti men always like to have about them, such as fire-drilling sticks, tinder boxes, awls for blood-letting, colours for painting of the face, etc.

[482]

The caraguatá yarn is spun, without the aid of a spindle, only by twisting the fibres (of Bromelia serra) against the thigh with the flat of the hand. Some of the yarn is dyed with vegetable dyestuffs in order to produce variegated patterns in the knitting (see figs. 135—139). For the knitting, eyed needles of hard wood (fig. 140) are used. Similar needles of wood or bone are also used for sewing. Among the Choroti I have seen men's bags which had been knitted of woollen-yarn with long cactus spines, used as knitting needles (fig. 141). The woollen-yarn bag here reproduced is ornamented with red, brown and grey

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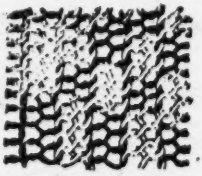

Fig. 136. Enlargement of the knitting of the bag in fig. 135.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

286
415

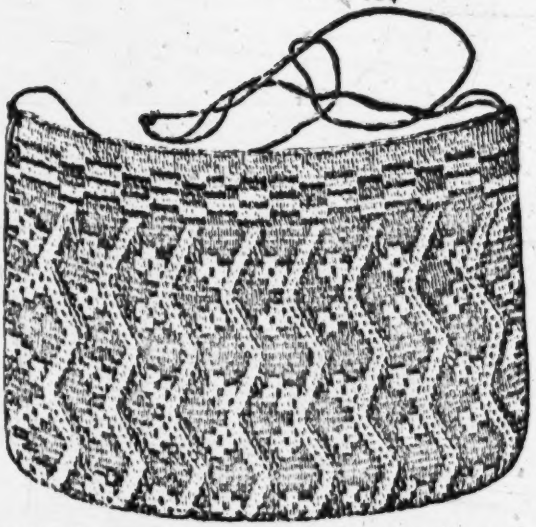

Fig. 137. Bag, knitted of brown, black and yellowish-white (natural colour) caraguata fibre yarn. Carrying strap of rawhide, twined together. Choroti. Gran Chaco. Bolivia. 1/3. Rikem. 03. 3. 110.

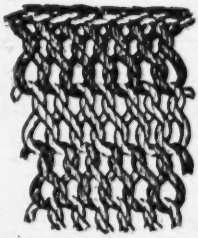

Fig. 139. Enlargement of the knitting of the bag in fig. 138. Twice enlarged.

Fig. 138. Bag, knitted of brown, black and yellowish white (natural colour) caraguata fibre yarn. Choroti, Gran Chaco. Bolivia. 1/3. Rikem. 03. 3. 133.

Fig. 140. Knitting needle, of wood. Choroti. Gran Chaco. Bolivia. 1/3. Rikem. 03. 3. 143 b.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

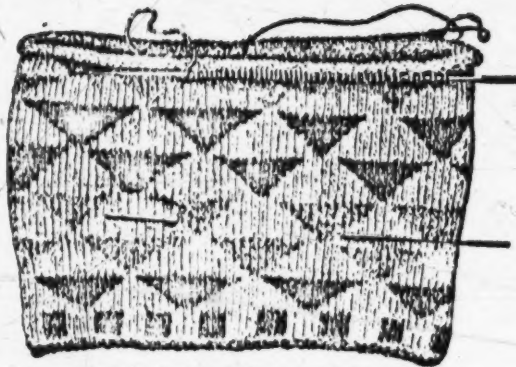

Fig. 141. Bag (unfinished), knitted of woollen-yarn, with two cactus spines used as knitting needles. The pattern consists of red, brown and grey triangles and squares on a greyish white ground. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 143.

Fig. 142. Distaff, with wooden spindle and a spherical whorl consisting of the hard shell of a fruit. Left-spun cotton yarn is wound on the spindle, near its middle. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 10. 3. 51.

Fig. 143. Distaff, with wooden spindle, and a plano-convex whorl of bone. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 140.

triangles and squares on greyish-white ground. It is probable that the Choroti have learnt the art of knitting through having been in contact with more cultured tribes.

From their herds of sheep the Choroti obtain all the wool they need for manufacturing mantles, loin cloths, ponchos, fillets, bags, etc. Wool, as well as cotton, is spun with distaffs of the Bakairi type[1] (figs. 142 and 143). The spindles of the distaffs are of wood, with a small knob at the top end for fixing the wool. The spindle is always thinnest at the upper end, and increases in thickness downwards, attaining its greatest thickness not far from its bottom end. The spindle whorls consist of various materials, such as fruit rinds, bone, earthenware, etc. I have even obtained a Choroti distaff with a stone whorl (Riksm. 10. 3. 50), although this is a material which is extremely rare on the

[1] For South American spinning implements and their classification see Frödin and Nordenskiöld (1). 10°. — *v. Rosen.* II.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6
Mataco S17

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[372]

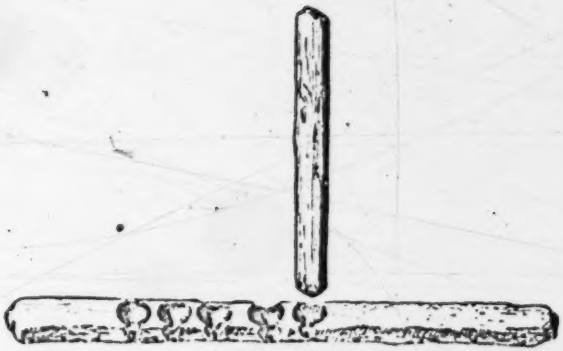

Fig. 148. Fire drilling implement, consisting of two wooden sticks. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 193.

For scraping and polishing wooden objects, pieces of mussel-shell are used. Formerly, when the Choroti could not obtain iron, all woodwork was produced exclusively by means of fire and mussel-shells. In shaping a piece of wood, the parts that were to come away were burnt in the fire, and the charred parts then scraped off with a sharp-edged piece of mussel-shell.

Nordenskiöld mentions that the Choroti, in the same way as other Chaco tribes, use saws made of hard wood with which they, among other things, saw off the stem and leaves of the, to the Indians so important, caraguatá plant,[1] after having grubbed it up with a fork-like digging stick.

Awls for working purposes are made of bone (fig. 147). Bone awls are also used for tattooing (see p. 75, 78), magical blood-letting (see pp. 63 and 64), and as weapons of offence (see p. 101).

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C
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C
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M
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415
237]

Fig. 149. Stems of a liana (Asclepiadaceæ), which form the material of which fire-drilling implements of the Choroti generally are made. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 196.

Like other Chaco tribes, the Choroti produce fire by drilling. Their fire-kindling implement consists of two round-sectioned, dry sticks of wood (fig 148), usually obtained from a species of liana (of the Asclepiadaceæ), fig. 149. One stick (the female one), which is thicker, and usually longer, than the other one (the male stick), has one or more bowl-shaped indentations, at

Fig. 150. Tail of armadillo, used as a tinder box. Mataco. Gran Chaco. Argentina. Exactly similar tinder boxes are used by the Choroti. 2/3. Riksm. 03. 3. 572.

[1] Nordenskiöld (11), pp. 65 and 66, also (13), pp. 110 and 111.

372 at the top, and by thus taking it by turns, the male stick is kept in continuous motion, until the wood powder begins to glow.

It is the work of the men to kindle the fire by drilling, but the women are charged with the responsibility of seeing that it does not go out unnecessarily. In order to keep cinders glowing during the night, or at other times when a flame on the hearth is not required, the women place on top of the fire dry, decayed tree stumps, which they cover with ashes, by means of which the stumps keep smouldering for a very long time. It is then easy, when required, to produce a flame by blowing [415] on, or fanning, the cinders. The fire-fan consists of feathers. Fig. 152 shows a young Choroti girl whilst carrying out her vestal duty of preserving a fire.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 152. A Choroti girl who has put decayed tree stumps on top of the fire in order to preserve it until again needed. Choroti. Gran Chaco. Bolivia. Photo. E. v. K.

[p. 134 is blank]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

of that kind are especially apt to make it easy for the spirits to acquire possession of human beings. When a woman paints her face, that fact may, therefore, indirectly constitute a sign that she desires sexual intercourse, although the painting may perhaps have been done for the magical reasons above indicated.[1]

On page 58 I have remarked that on a reed-casing for keeping ostrich plumes the holes and the edges of the lids were painted red. This red-painting cannot very well be of a decorative character, seeing that there is not much of the paint visible when the lid is closed. According to my opinion, it is very probable that the paint has been applied in order to protect the delicate ostrich plumes contained in the casing from sustaining harm from evil spirits. The fact is that there is, among the Indians, a wide-spread belief that decay and similar processes are caused by evil spirits, on account of which it has been customary among certain Indian tribes to paint not only corpses but also grave equipment with red paint for the purpose of preservation against decay. And we also possess positive evidence that among certain Indian tribes the custom prevails of providing the property of the living with a similar magically protective, painting.

When through Karsten's paper on Indian conceptions as to the significance of painting,[2] my attention had been drawn to these circumstances, I took to examining most of the objects I had found as grave furniture at Quebrada del Toro and Puna de Jujuy (Argentina) in order to ascertain whether any of these objects had been painted before being put with the dead.[3] This examination revealed that nine wooden objects seemed to be painted all over with red paint, but as I, owing to the objects having lain such a long time in the ground, was unable with certainty to decide whether these objects really were painted, or whether their red colour was due to the natural colour of the wood, I had the objects in question submitted to chemical examination. It was then established that the objects were painted, and that the paint consisted of ferrix oxide, almost pure,[4] (so therefore not uruku, which is prepared from Bixa Orellana).

[1] Cf. Karsten (4), Chap. I.

[2] Karsten (4), Chap. I.

[3] As a result of the fact that all the ethnographical and archæological collections of the Riksmuseum are stored in most unsuitable premises, it has not been possible to find all of the objects.

[4] Analytical report No. 211954, Chemico Technical Bureau (Kemiskt Tekniska Byrån).

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

I cannot tell, but from an analogous carving from the Lengua it is very probable that they represent spirits.[1]

Most rattles contain seeds, and in many of them are also found a large number of metal fragments (see synoptical table below). The latter as a rule consist of small, square pieces of tin plate, for the most part with a side of from 5 to 15 millimetres. Bits of glass do not unfrequently occur in the rattles, although never in any great numbers; generally only a few bits of glass are found in any one rattle. In the Chaco, bits of glass are naturally extremely rare. In the rattle reproduced in fig. 181 were only found bits of tin plate and one cactus spine. Although this rattle belongs to the handle-hole type (see pp. 148, 149), it nevertheless has a hole in the bottom, with a plug of the kind I have described in connexion with the magic rattle, fig. 170. Professor Robert Fries has been kind enough to examine the different kinds of seeds that I have found in magic rattles, as well as in the bag mentioned below, and he then determined the presence of a species of Canna, a leguminous plant, a species of Convolvulaceæ, one of Sapotaceæ and a Smilax. Several kinds of seeds could not be identified from lack of material to compare them with.

Synoptic table of contents in magic rattles from the Choroti.

Riksm. coll. 03. 3.

No. of rattle	Type of rattle	Contents
386	Plugged hole through bottom. Carrying cord (fig. 170).	Seeds (Smilax and undetermined), 1 dark blue piece of glass.
385	Ditto.	Seeds (Smilax and Canna), 2 bits of zinc plate, 1 spiral spring of iron, 2 cactus spines.
390	Plugged hole through top of handle, ditto through bottom. No carrying cord. (fig. 181)	Nine bits of plate iron, one cactus spine.
384	Like foregoing, but no hole at the bottom.	Seeds (Canna and undetermined), 2 bits of plate iron.
387	Ditto.	Seeds (Smilax, a leguminous plant, and of unknown species), 34 black glass beads, 1 blue glass bead and 4 yellowish-green bits of glass.
388	Ditto.	Seeds (Convolvulaceæ and unknown), 1 piece of zinc plate, and 1 uncoloured piece of glass.

From a Choroti I obtained by barter a small bag of red cloth (Riksm. 03. 3. 391), abundantly wound round with caraguatá string, in which he said he used to keep the things that he put into magic rattles.

[1] Grubb (1), p. 75, and fig. a on plate following p. 76.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

as graters. On the coast of Ecuador (J) they have found grating-boards (?) of baked clay with stones fastened in the clay[1]).

It is of great interest to see that in N.E. Bolivia we only find the most primitive form of manioc grating-boards.

b) Cooking utensils.

The Ashluslay and the Choroti cook their food in simple pots of baked clay. Of the tribes I have visited in my travels, the Cháma and Tambopata-Guarayo Indians are the only ones that have no clay vessels. For the rest, very few S. American tribes have no cooking utensils of baked clay. They are the Botocudo and some other Gê's tribes, the tribes of Tierra del Fuego, and now also the Patagonians.

c) Wooden spits.

(See Chapter XIII).

d) Platter, etc.

The (1) Choroti and (2) Ashluslay eat off dishes of baked clay, or off calabash shells. The former, and probably also the latter, have wooden platters as well. The Ashluslay also have large wooden basins.

I have seen wooden bowl (Map 12) among the following tribes in addition to those named: (19) Aymara, (18) Quichua, (5) Chané (4) Chiriguano (6) Mataco, (22) Yuracáre, (23) Churápa and (89) among Indians on the Calilegua, Argentina.

They are also known from the (18) Quichua, Papallacta in Ecuador[2]) (10) Araucanians,[3]) (16) Guató[4]) (49) Araona[5]) (36) Ijca[6]) and the (68) Omagua (?)[7]).

[1]) Joyce, Pl. 6. fig. 2.
[2]) Uhle (1) Vol. 2. Pl. 17. fig. 18—19.
[3]) Latcham (1) p. 342.
[4]) Max Schmidt (3) p. 211.
[5]) Armentia p. 60.
[6]) Bolinder (4) p. 59.
[7]) M. f. V. L. (S. Am. 1350).

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

Archaeological excavations have brought to light wooden bowles in the (D) Puna de Jujuy[1]) and on (A) the coast of Peru[2])

To judge from the distribution, the wooden bowl is a cultural element that the Chaco Indians received from the mountain civilization. The archaelogical finds of wooden bowls in N. Argentina show that they were used there in pre-Columbian times.

Fig. 20. Wooden dish, Choroti. G. M. (W. 634) 1/6.

Fig. 21. Wooden bowl. Quichua-Mestizos. Calilegua, N. Argentina. R. M. (u. 24) 1/4

The shape of the little handles on the wooden dishes of the Choroti Indians are very similar to those on the bowls of the Quichua-Mestizos in N. Argentina (Figs 20. 21).

e) *Eating utensils.*

The (1) Choroti and (2) Ashluslay have spoons of wood (Map 13) and horn. As eating utensils they also use mussel-shells and calabashes.

Besides the above-named tribes, I have seen the following tribes in the course of my travels who used wooden

[1]) Lehmann-Nitsche (1), Pl. 5. E. 12.
[2]) Putnam, Pl. 26. fig. 6 and 7.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

Catamarca[1]) at (E) Amaicha, Tucuman[2]) in (c) the Puna de Atacama[3]) in (F) San Juan[4]) in Argentine, and in the (G) Ollachea valley, Peru.[5]).

As far as one can judge, the wooden spoon is pre-Columbian in the Chaco. But evidently some forms of it, which are found among tribes that have had much do to with white men, were carved under the influence of the metal spoon which the Indians acquired from the whites (Fig. 25, D.-G.). Still we must not forget that a tribe now carves its wooden spoons on the model of spoons it has acquired from the whites, and yet may have known the spoon at a time when its culture was not influenced by them.

Fig. 22. Wooden spoons from old graves. Rio San Juan del Mayo in Puna de Jujuy (After LEHMANN-NITSCHE.)

It is therefore very hard to decide where the spoon is a purely Indian cultural element. But that in the main the spoon is a westerly cultural element, is clear. The spoons found among the Choroti and Ashluslay are exactly like the spoons that have been found in old graves in N.W. Argentine, and in consideration of this, as well as of the distribution of the spoon in general, one has every right to assume that this cultural element is derived from the mountain culture. The spoons

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[1]) BRUCH (2) fig. 23.
[2]) AMBROSETTI (2) fig. 249.
[3]) BOMAN, p. 759. AMBROSETTI (4), Pl. 3. fig. 39—41
[4]) DEBENEDETTI (4) p. 78. fig. 62.
[5]) NORDENSKIÖLD (3), p. 32.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

A C 415

found in old graves, as well as the spoons of the Choroti and Ashluslay Indians have a straight handle and a more or less circular bowl (figs. 22 and 24 A, B. C).

The *horn spoon* must be post-Columbian, the material being new.

The *shell spoon* is very widely distributed. It is probably in universal use wherever suitable material is to be found. This is also true of the *calabash spoon*.

Fig. 23. Eating-brush of Caraguata. Ashluslay G. M. (A 1417).

A really original eating utensil is the *eating-brush* (fig. 23). I have seen them in common use among the Ashluslay. They are also known from the Guayaki Indians in Paraguay[1] [2] In the Chaco they are used for eating honey.

The *wooden knife* used for eating water-melons[3] I have seen exclusively in the Chaco.

[1] Kunike.

[2] Roquette-Pinto (2) (p. 195) also mentions them from the »sertanejos meladores« in Matto Grosso.

[3] See »Indianerleben«, fig. 18.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6

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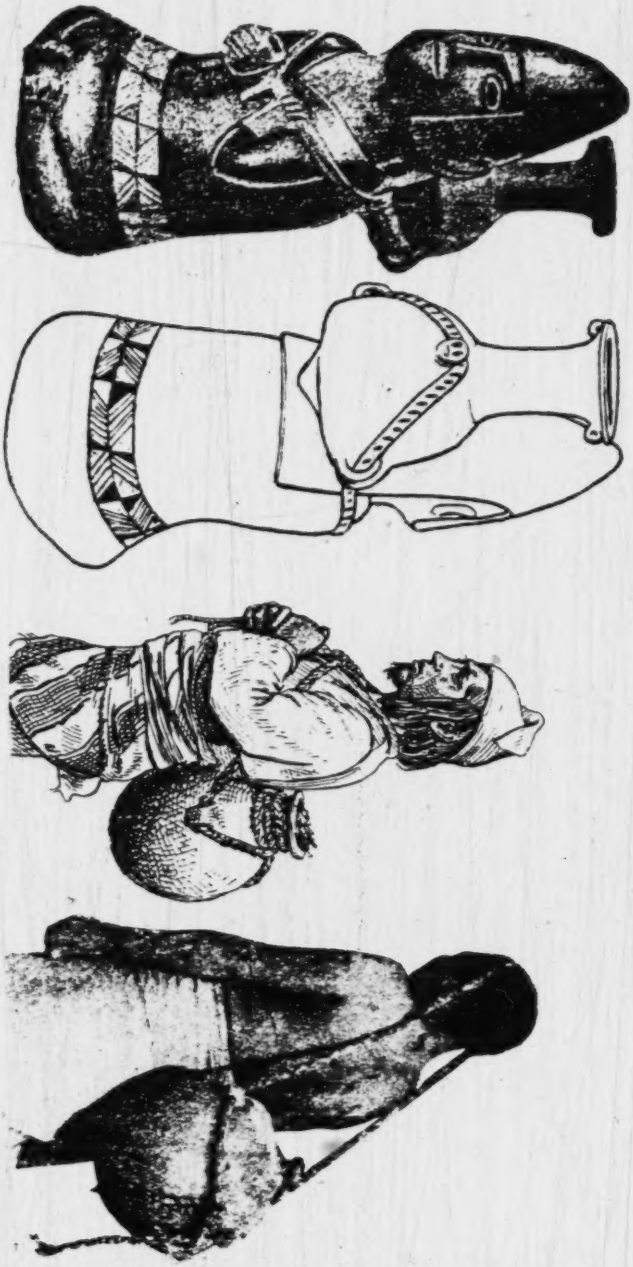

[p. 142]

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

since it is used by most of the Gês-tribes who live in tracts where there is abundance of material for basket-making. The supposition that the use of carrying-nets among these tribes is due to the difficulty of finding suitable wicker is thus precluded.

The carrying-net is in use among the following tribes as well as those indicated in the table on p. 144: (45) Botokuds[1]), (27) Ona[2]), (67) Suya[3]), (28) Bakaïrí[4]), (28) Mehinakú[4]), and (28) Auetö[4]), (11) Chamacoco[4]), (8) Lengua[5]), (12) Mbayá[6]), (36), Ijca[7]), (10) Araucanians[8]), and (03) Tapuya[9]). The (E) Diaguita[10]) seem formerly to have made use of carrying-nets; UHLE[11]) found carrying-nets in the very old excavations at (B) Arica.

In all probability various nets found on the coast of (A) Peru are also carrying-nets. In the Linden Museum at Stuttgart there are nets of this kind from Valle de Chancay. One of these, made of fine string, is 125 centimetres long and 30 centimetres broad (when stretched)[12]).

The waterpots are borne by the Choroti, Ashluslay, Mataco, Toba[13]), Tapiete, Lengua[14]), and Mbayá[15]) in the Chaco in a very characteristic manner (Fig. 45). Around the pitcher, which is indented at the middle and has two ears, there runs a cord. This is fixed by the woman who carries the pitcher

1) v. IHERING (2), Pl. 4, Fig. 7. WIED, Vol. I, Pl. 14.
2) GALLARDO, p. 285 Very simple form.
3) v. D. STEINEN (1), p. 194.
4) RADIN, p. 928.
5) GRUBB, p. 95.
6) SÁNCHEZ LABRADOR Vol. 1, p. 271.
7) G. M. BOLINDER.
8) MASON, p. 535.
9) FRESCAROLO, p. 114.
10) AMBROSETTI (2), p. 449; QUIROGA, fig. 7.
11) (7), p. 30.
12) According to letter received from KOCH-GRÜNBERG.
13) Also the Toba on the lower Rio Pilcomayo. DUCCI, p. 8.
14) GRUBB, Fig. p. 99.
15) SÁNCHEZ LABRADOR, Vol. 1, p. 291.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

XXII.

Holders for Various Articles.

On entering a Choroti or Ashluslay hut, one finds lying on the floor, or else hanging in the hut, large and small bags knitted of Caraguatá. In these bags which, as has been mentioned, are used on journeys for carrying articles in, these Indians keep their goods and chattels. Besides these bags they have also pouches of ostrich-skin, wild pig-skin, and ostrich-necks. Small articles are usually kept in small pouches and bags placed inside larger ones for preservation. Ornamental feathers are usually kept by these Indians in sections of reeds.

The Mataco, Toba, and Tapiete Indians preserve their property in like manner. All is preserved in such wise that it can be collected in a short time when they desire to set out on a journey or escape with all their goods and chattles.

As most writers say nothing as to how the Indians preserve their private property, I will here content myself with drawing a comparison between the tribes I have got to know personally. The following tables indicate the commonest manner of preservation.

Ashluslay. — Caraguatá bags, pouches of leather, sections of reeds.

Atsalnaca. — Baskets.

Aymara, — Sacks and satchels of cloth, niches in the hut, storehouses.

Cavina. — Baskets, satchels of bought cloth, storehouses.

000 Chacobo. — Baskets, storehouses.

Cháma. — Baskets.

Chané. — Earthenware vessels, hooks in the ceiling, storehouses.

Chimane. — Baskets, shelves, cloth bags.

Chiriguano. — Earthenware vessels, hanging on the roof of the hut, hooks in the ceiling, storehouses.

[415] Choroti. — Caraguatá bags, pouches of leather, sections of reeds.

Guarayú (Pauserna). — Baskets, in leaves.

Huanyam. — Baskets, leathern bags, bast holders.

Huari. — Hanging in the hut, stuck into the walls of the hut.

Mataco. — Caraguatá bags, shelves, leather pouches, sections of reeds, storehouses.

Quichua. — Sacks and pouches of cloth, niches in the hut, storehouses.

Siriono. — Baskets.

Tambopata-Guarayo. — Baskets.

Tapiete. — Caraguatá bags, leather pouches, sections of reeds.

Toba. — Caraguatá bags, leather pouches, sections of reeds

Tsirakua. — Caraguatá bags, leather pouches, sections of reeds.

Yamiaca. — Baskets.

Yuracáre. — Baskets, pouches of bast, and bought cloth.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

A C 321 401

The Choroti and Ashluslay understand how to bore through teeth and mussel-shells. For this purpose they now use drills, made of darning-needles provided with a handle, which they obtain from the whites. The art of drilling holes in bone must be very ancient in S. America, being certainly known to every Indian tribe. The Tierra del Fuegians, however, seem not to possess necklaces of drilled teeth.

The carving and ornamentation of calabashes.

A C 415 322

Calabashes are extensively used in the whole of tropical S. America. They are lacking only in the extreme south of the continent and among some Gês-tribes who are quite uncivilized. Even up on the Andes the Indians often have calabashes which they get from the valleys on the eastern slopes of these mountains. Calabashes have been found in old excavations in the Puna de Jujuy[1]) where they cannot be cultivated. During his archaeological excavations at Calama in Puna de Atacama UHLE[2]) found numerous calabashes. He believes that the Indians there received them from Argentina.

The Choroti and Ashluslay have no tree calabashes, but use the fruit of a cucurbitaceæ which they cultivate. From these they make boxes, large bowls, etc.

Fig. 67. Calabash box with lid. R. M. (A. 1304). 1/4.

They often provide these boxes with lids which are not infrequently carved in the shape of a star. They are made in the manner described by SÁNCHEZ LABRADOR[3]), speaking of

[1]) LEHMAN-NITSCHE (1).
[2]) (5), p. 109.
[3]) Vol. 1, p. 271.

[text continues on p. 224]

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
.Ashluslay SK5

A C 415 322

the Mbayá:— «Labran una especie de calabazos grandes sacandoles con delicadeza un pedazo por el pezon que despues ajusta como tapa». — e. g. *the lid and the calabash-box are always from one and the same fruit.*

A C [531]

The calabashes are frequently ornamented, sometimes by burning, sometimes by cutting. Should a large calabash crack, the Choroti and Ashluslay generally mend it by sewing together the edges. (See Fig. 68).

Calabashes with lids of this kind (Fig. 67) are found among the (18) Quichua[1]), (4) Chiriguano[2]), (6) Matacos[3]).

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(X 4) Payaguá[4]), (12) Mbayá[5]), Kadiuéo), (8) Lengua[6]), (8) Angaité[7]), (21) Cainguá[8]), and (36) Ijca[9]) as well as the (2) Ashluslay and (1) Choroti.

Furthermore, calabashes with similar lids (Map 42) are mentioned from excavations in (D) ? the Puna de Jujuy[10]), from (A) the coast of Peru[11]), from (γ) the neighbourhood of Cuzco[12]), and from (G) Capamitas in the borderland of Peru and Bolivia[13]). We see that the distribution in S. America of lids of the kind here described is in the west Plainly we have to do with a cultural element which the Chaco Indians have derived from the western area of civilization

Calabashes with lids of a rather different type are mentioned by KRAUSE from the (15) Kayapó[14]), by Kissenberth[15])

[1]) G. M. 15. 1. 87.
[2]) G. M. 15. 1. 144.
[3]) R. M. (M. 1251).
[4]) M. C. (He. 316, H. 322 a. H. 923.)
[5]) BOGGIANI (2), Fig. 50.
[6]) GRUBB, p. 74.
[7]) M. f. V. C. (17034, Collection FRIČ.)
[8]) M. f. V. C. (613 i).
[9]) G. M. BOLINDER.
[10]) LEHMANN-NITSCHE (1), Pl. 3, Fig. 4.
[11]) REISS und STÜBEL, Vol. 3, P. 82, fig. 4.
[12]) M. f. V. B. (V. A. 8900).
[13]) NORDENSKIOLD, (3), S. 24. R. M. (06. I. 408.)
[14]) Fig. 215.
[15]) (1), fig. 1.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

from the (5X) Canella, and KOCH-GRÜNBERG[13]) from the (48) Yahúna, Rio Apaporis.

Calabashes with encáustic ornamentation (Map 43) are rare among the Ashluslay, somewhat more common among the Choroti, and very common among the Mataco. They are found among the Toba and, very generally, among the Chiriguano and Chané. They are quite wanting in the tribes I visited in N.E. Bolivia and the adjacent country, although some of these tribes, e. g. the Guarayú (Pauserna) have got richly ornamented calabashes.

Calabashes with encaustic ornamentation are also known from the (14) Bororó[2]), (20) Paressi-Kabíši[3]), (28) Bakaïrí[4]) and other tribes on the upper Rio Xingú, (13) Karajá and (50) Šavajé[5]) (21) Cainguá[6]), (29) Caingáng[7]), (41) Šokleng[8]), the Indians of (09) Chachapoya[9]), Peru, (47) Araeuna[10]), (47) Makusi and Wapischana[11]), the Indians on the Rio Pichis, Rio Ucayali[12]) (33) Campa[13]), (48) Tarianá[14]), and (48) Arapaso[15]) (on the Cairáy Uaupés).

In Peru, Argentina and Chile calabashes graven by fire have been frequently discovered, e. g. at (B) Arica[16]), (A)

[1]) (2), Vol. 2, fig. 107.
[2]) M. f. V. C. (17089). Fric Collection.
[3]) MAX SCHMIDT (4), p. 343.
[4]) MAX SCHMIDT (4), fig. 227-230.
[5]) KRAUSE, p. 280; M. f. V. [illegible].
[6]) M. C. (Hc. 05[illegible]).
[7]) M. C. (Hc. 012).
[8]) M. f. V. B. (V. B. 4172).
[9]) UHLE (1), Vol. 2, Pl. 4, fig. 11.
[10]) M. f. V. B. (V. A. 01234).
[11]) M. f. V. B. (II. 17:57-58; II. 17:29).
[12]) M. f. V. B. (V. A. 10882). (not marked on the map).
[13]) M. f. V. B. (V. A. 10883).
[14]) M. f. V. B. (V. B. 05000).
[15]) M. f. V. B. (V. B. 5935).
[16]) UHLE (1), Vol. 1. Pl. 25, fig. 19.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

Ancon [1]), (K) Trujillo [2]), (y) Cuzco (Paucartambo [3]), (G) Quiaca [4]), (C) Calama [5]), (E) La Paya [6]) and in (F) San Juan [7]).

In some parts the Indians may have learnt the encaustic ornamentation of calabashes from whites and negroes. It is evident, however, that this kind of ornamentation *mainly occurs in the west of S. America*, and I deem it in the highest degree probable that the Chaco Indians took over the art of pyrograving from the western area of culture.

The question arises whether this process of ornamentation did not originate in a district where the people had at their disposal metal implements by means of which figures might easily be burnt into wood or similar material.

Among the Choroti and Ashluslay in the Chaco pyrograving is performed on whistles and cases, as well as on reed flutes.

Calabashes with engraved ornamentation are distributed over a very wide area. I will only mention here the tribes among whom I have myself seen them:— viz. the Choroti, Ashluslay, Mataco, Toba, Tapiete, Tsirakua, Chiriguano, Chané, Churápa, and Yuracáre.

The calabashes of the Choroti and Ashluslay Indians are never painted, nor are they blackened inside, like the calabashes of the Guarayú and many other tribes.

As regards the ornamentation itself, I do not venture to assign any particular quarter as its source. It may possibly be an imitation of the ornaments on the calabashes of more civilized tribes. I am not able, however, to adduce any proof of this.

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[1]) Reiss und Stübel, Vol. 3, Pl. 82.
[2]) M. C. (O. D. I. c. 249).
[3]) M. f. V. B. (V. A. 80000)
[4]) Nordenskiöld (3), p. 29, R. M. (00. 1. 434).
[5]) Uhle (5), p. 109.
[6]) Ambrosetti (6), p. 523.
[7]) Debenedetti (4), p. 64, fig. 35.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay

When a small crack appears on a large and valuable calabash, the (1) Choroti and (2) Ashluslay, as was mentioned, mend it by sewing the edges together. Calabashes sewn together in like manner (Map 44) are also found among the (6) Mataco, (4) Chiriguano, (22) Yuracáre[1]) and the (28) Indians on the Rio Xingú[2]). On the other hand, I have never seen mended calabashes among any of the tribes I visited in N. E. Bolivia.

The National Museum at Stockholm possesses a calabash from the excavation field at (A) Ancon[3]) on the Peruvian coast which has been mended by sewing together the

Fig. 68. Piece of a calabash mended by sewing. Mataco. R. M. (M. 170). 1/4.

sundered edges. There is another in the Gothenburg Museum from the (36) Ijca in Columbia[4]). Probably the sewing together of calabashes is an idea obtained by the Chaco Indians from the mountain civilization. In the Chaco it is the large calabashes, hard to replace, which are thus mended. Of the mended calabashes I collected from the Chiriguano there are, characteristically enough, tree calabashes which do not grow in their country, but are imported from the Sta Cruz district. The idea of mending calabashes must certainly have arisen in a tract where calabashes either were not cultivated at all or, if cultivated, only with difficulty,

[1]) Not marked on the map.
[2]) K. v. d. Steinen (3), p. 241.
[3]) Stolpe's collection. (R. M. 21, 150).
[4]) G. M. Bolinder's collection.

/377/

Wooden Bowls and Basins

C 415 171 439

The Chiriguano also use wooden bowls (Fig. 49). I do not know whether they make them themselves or receive them from the half-breeds of the /Fig. 48 appears here/ San Luis region. In this latter case the Chiriguano of the San Luis (Entre-Rios) region would be the only ones to make them. In Tarija /Figs. 49-50 appear here / where these bowls are much sought after by the half-breeds, they were indicated to me as coming from that zone. The rare wooden bowls which /378/ I saw at Caipipendí had been bought by the Chiriguano in the course of their trips. The same origin must be attributed to the wooden troughs found among the Chiriguano who live near the Quichua half-breeds of Tarija department. These basins are used for washing food and also as bathtubs. The Choroti have wooden dishes (Nordenskiöld, 9, Fig. 20, p. 88) which have a shape very similar to that of the trough reproduced here (Fig. 50) and which doubtless were introduced among them either by the ancient Quichua or by the half-breeds. Among the Araucan of Argentina wooden basins are found, which are similar in every detail to those of the Indians and half-breeds of Bolivia and the specimen pictured here.

Ci 415 177

A 415 171

Chapter V

Tools of the Chiriguano

C 412 178 [179]

The work tools the Chiriguano use nowadays are almost all of European manufacture. Here and there the ancient forms were kept when stone or bone were replaced by iron. Witness the adze of Plate XXII /see p. 143 / which constitutes a curious survival of the eared or T-shaped ax certainly adopted by the Chiriguano after their migration and their establishment at the foot of the Andes. This type of ax is unknown to me from any other Tupi-Guarani tribe and is rare in the area occupied by the different nations belonging to this linguistic family (see Rivet, 1, pp. 149-155).

T-G [412 184]

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

273
415
361

Preparations being made for the great drinking-feast among the Choroti. A goat's hide is fixed in the ground so as to form a vessel, in which the beer is brewed.

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Choroti Indians assembled for a drinking-feast under a shady algaroba tree.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI12
Choroti SK6

M I C 273 462 415

We have already seen that the most appreciated of these drinks is algaroba beer, which by the Mataco and the Choroti is called *atās*, by the Tobas again *maplyi*. The tree itself and its fruit is called *oáh* in the Mataco and the Choroti language, in the Toba language *map*. The sacred beer is prepared with the utmost care and with certain religious or magical ceremonies. At this preparation there appears a strict division of labour between men and women. Although the women are not allowed to drink of the beer, they seemingly perform the larger part of the work. They collect the fruit in the forest, carrying it home in their large caraguatá bags, and afterwards mash it in mortars. Some old women start to chew the fruit, mixing it well with saliva, whereupon they spit it out into a goat's hide, fixed in the ground by means of sticks in such a way that it forms a sort of vessel. The goat's hide is used by the Choroti and by the Argentine Mataco, whereas the Tobas and the Bolivian Mataco use a wooden trough for the purpose. Lastly, hot water is poured over the mashed fruit.

M I C 273 [462]

These preparations require nearly a whole day. The most essential thing still remains, namely the fermentation, and to effect this is a duty solely incumbent on the men, since women as a rule do not take part in conjurations. The fermentation is sacred, because it means the birth of the good spirit. Now this happens in the night, but night is the time when evil spirits move about. According to the belief of the Indians, the invisible persecutors appear in great numbers in order to prevent the birth of the good spirit and interfere with the drink so that it cannot ferment and is entirely spoiled. Therefore special precautions must be taken for the critical time. The brewing of the algaroba beer for the great festivals during the algaroba season is — especially among the primitive Choroti — a matter that concerns the whole community. Hence, at the approach of night, the men arrive from all houses with their rattle gourds, sit round the hide or trough, and begin to chant a noisy, monotonous song without words, shaking the rattles in the rhythm of their chant. This ceremony is called by the Choroti *nissammaha oáh*, by the Tobas *niapilák map*, and its most conspicuous object is to prevent the spirits from spoiling the beer. Since the new moon is believed to promote fermentation, a moonlight night is preferably chosen for the ceremony. The chant is typical of the Indian conjurations in the Chaco. It is always begun in a loud voice; then the voice gradually dies down, so that the last tones are only heard as a low and distant muttering. Thereupon they start again from the beginning, and so forth. In addi-

M T C [821]

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

Indian tribe. For myself I have regarded them mainly from the point of view of the ethnologist and social psychologist, and cannot help holding a somewhat different opinion on the subject. The state of things which Mr. Grubb found among the Lenguas, it should be noted, is in the main the same as among all Chaco tribes. Mr. Grubb disregards the fact that what he calls Indian socialism, with the solidarity and social sympathy which it involves, is not accidental but the natural outcome of evolution and the circumstances under which the Chaco Indians have lived for centuries. It is not only a natural system but also a useful system, having been developed according to the Darwinian law that in a hard struggle for existence such societies have the best chance to survive in which the sympathetic feelings are strongest. In fact, nowhere is mutual aid more necessary than among the half-nomadic Chaco tribes, who are able to practise agriculture only to a small extent and who, as pointed out before, at certain times of the year have to struggle hard to support life. Lacking these social feelings, I believe, many of the smaller tribes, for instance the Choroti, would have perished long ago. Besides, the very history of the Chaco Indians proves that they have been driven into these inhospitable regions by forces over which they had no control, the most important being the pressure of superior peoples. Pressed from behind and meeting resistance from those already occupying these lands they were compelled to fight for their very existence. These facts of the historic past of the Chaco Indians account for the warlike character of many of them, but also for their strong social instincts.

Social sympathy is developed strongest among low tribes such as the Choroti and Ashluslay, but also manifests itself among the Tobas and the Mataco. What Mr. Grubb says with special reference to the Lenguas, that »the apparent hospitality is given grudgingly, though ostensibly with a good grace», does not at any rate hold true of the *Choroti*. I have mentioned before that bargaining in every form is unknown to the Choroti, and this is due simply to the fact that they regard themselves as being socially so intimately united that property and the products of labour are practically common to all. When a party of Choroti men return from fishing they always distribute the catch in the village so that every family has its share, and if one asks a Choroti why he does so, his only answer is generally: *etsini*, *i.e.* »they are my brothers». »We are all brothers», is the principal tenet of their social morality. There is an unwritten native law which states that no single family or individual shall suffer want as long as there are others who possess food. This system is looked

286 Among the Choroti, I have only seen a very few individuals wearing
291 the poncho, and the only specimen of this garment I succeeded in obtaining belonged to a half-grown youth. This poncho (fig. 35) consists of a woollen fabric, 160 cm long and 61 cm broad, in the middle of which there is a slit, 26.5 cm in length. The weaving consists of two-threaded, tightly spun yarn of greyish white (the natural colour of the wool) and red (now faded). Its ornamental design is formed by three broad, decorated strips, woven on double warp, so that on one side the pattern shows greyish white on red ground, and on the other side red, on greyish white ground. The fabric between these strips is rep, with the woof of greyish white yarn. Whether this poncho is of Choroti weaving, one cannot be certain. Possibly it has been obtained by Choroti from their Ashluslay neighbours, seeing that similar garments are not uncommon among the latter.[1]

[531]

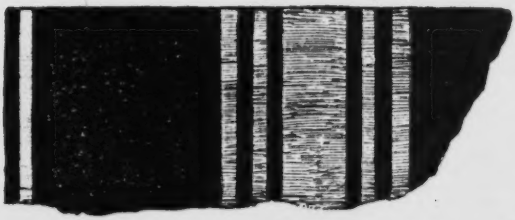

Fig. 33. Corner of man's mantle which is 204 cm long and 185 cm wide, of brownish-red wool, woven with groups of greyish yellow stripes. Gran Chaco. Bolivia. 1/4. Riksm. 03. 3. 1.

[531 171 422]

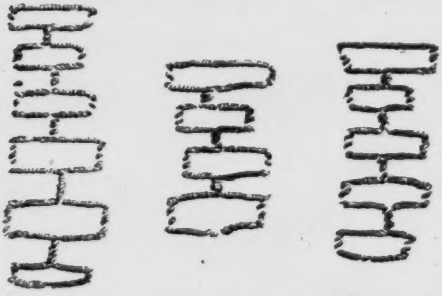

Fig. 34. Ornaments (probably property marks), placed in the middle of the mantle, a detail of which is seen in fig. 33. 1/3.

292 In the huts of the Choroti I frequently came across a kind of thick shirts, knitted from tightly spun
714 caraguatá-fibre threads (fig. 36), but I never saw them in use. In reply to my questions as to the reason for this, I was told that these garments are chiefly worn in fighting, when they are used as a protection against
[171] arrows. Caraguatá shirts are also used by the Ashluslay and the Mataco,[2] but in the literature on those Indians I have found no reference as to their being used as a protection against arrows. The Chiriguano, however,

[1] Nordenskiöld (11), pp. 111 and 112.
[2] Nordenskiöld (11), p. 107.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI12
Choroti SK6

M 574

remain silent, perhaps muttering some menacing words. This is particularly the way in which the Tobas receive undesired guests. The best thing for a visitor so received is to leave the Indians as soon as possible, since these treacherous and daring savages would not shrink from taking his life.

C 576

When the Choroti guest leaves the house where he has paid a visit he always says: *yápeh*, or: *ayápeh*, »I go», or »I go back (to my own house)», to which the host only answers: *mah*, »go on!», »hurry on!». The Toba guest, on leaving, says *malhék*, or *kíuo* or *málhe'giuo*, (»I go», »I go back to my house»), the host answering with the word *hamóh* (»hurry on!»).

C 439

The *Choroti* barter with those foreign tribes with whom they maintain friendly intercourse, their own most important article of exchange being dried fish. From the Guarani-speaking Tapiete Indians, and in some cases from the Avas, they receive especially the much appreciated cereal, maize, as well as the red *urucú*-paint, indispensable for painting the face and the body on festival occasions. The *urucú*-shrub, it should be noted, requires a purely tropical climate and does not grow in the Chaco. On the other hand the Choroti barter with the Ashluslay in the south, receiving from them among other things one of their most costly ornaments, a necklace consisting of small buttons cut out from snail's shells and strung closely together. Such a necklace is from three to six yards in length, and is highly valued not only as a pure ornament but also on account of the magical properties ascribed to it. The receiving of these necklaces from the Ashluslay seems to be but a transit-trade, for the latter Indians in their turn buy them from the tribes in the interior of the Chaco, probably from the Lenguas, who according to Mr. Grubb, make such necklaces. Mr. Grubb adds that »these strings of buttons are the money of the people» and that the value of a big necklace is one sheep.[1] As a matter of fact, the Choroti when bartering with the Ashluslay pay one sheep each for these necklaces.

C [435 • 436]

Of more interest are the commercial connections which the *Tobas* have with neighbouring tribes, especially with the Mataco-Noctenes in the west and the Ávas in the north. At any rate there is frequent intercourse between the Bolivian Tobas and the Avas living at the Catholic missions Tarairi, Tihüipa, and Machareti. In connection with the visits which these Indians are in the habit of paying to the country of the Tobas, I had an excellent opportunity of studying primitive Indian trade. The

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[1]) Grubb, *op. cit.*, p. 71.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

from a tribe they called Manslé, said to be living in the neighbourhood of Rio Paraguay.[1] Thus the spangles of which the Tapiete were in possession had, by way of trade between the tribes, been transported *at least* 360 miles from the place where they had been made. 439

Among the Choroti, the long spangle necklaces (as seen in fig. 56) served them as a kind of currency. So, for instance, the value of an Indian woollen mantle was expressed in a certain number of arm-lengths of such a necklace, and that of a head of cattle in some other, definite, number of arm-lengths. In gambling, the stake often consisted of snail-shell spangles or whole necklaces. 436 [525]

There were also other objects which formed articles of trade between the Indians. On page 81 I have mentioned a wooden comb which probably originates from the Chiriguano, and on page 78 I have reproduced a small wooden bowl containing colouring seeds that have probably come from the same tribe. The child's poncho, fig. 35, has probably been bought by some Choroti from an Ashluslay; it is also possible that a few other objects in my collection have found their way to the Choroti Indians through barter with neighbouring tribes. 439

[1] Nordenskiöld (13), p. 137.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI12
Choroti SK6

M 574

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C [435 436] ●

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

as well as the Chaco tribes of the Guaikurú group, like the Choroti, wear these garments as war shirts.[1] In all the tribes just referred to (and the Ashluslay and Mataco as well), such shirts are worn exclusively by the men. The Caraguatá shirt here reproduced is knitted very tightly and closely (fig. 37), and, although its length is only 56 cm, exclusive of the shoulder straps, it weighs as much as 1.4 kg. The stripes that are worked in by way of ornamentation, have been formed by using string dyed black, and string dyed brown, alternately, in knitting. The parts that are between the stripes consist of undyed fibre. At the bottom edge of the shirt, small pieces of red and yellowish brown cloth have been tacked on; these originate from the whites.

Fig. 35. Child's poncho (a boy's) of wool, with woven ornaments. Ground colour brownish-red; ornament yellowish-grey. Choróti (probably manufactured among some other tribe). Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 4.

These mail shirts of caraguatá-fibre string are exceedingly well manufactured, and undoubtedly form a good protection against the Chaco Indians' arrows, which are usually wooden-pointed. Arrows with rod-shaped, iron wire points, or with leaf-like, edged, iron heads, on the other hand, would probably pierce even the thickest and most closely knitted caraguatá shirt. The shoulder straps in these mail shirts are knitted considerably thinner and less closely than the rest of the shirt, and this is only natural, as the function of the straps is to suspend the shirt, and not to give protection against arrows. Besides, they could only be hit by arrows dipping at an angle from above.

[1] Krickeberg (1), p. 131.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

and 40). Miss Agnes Branting, who has kindly examined the textiles here reproduced, found the frontlet in fig. 40 especially interesting, as similar fillets are woven by the peasantry in very many provinces of Sweden, for instance Scania, Halland, Wermland and Helsingland. Miss Branting writes on this matter as follows: »Fillets of this kind are made without any other implement than just any sort of object to which the yarn can be attached, say a weighted pincushion held on the knee. The weaving is begun from the centre of the fillet by crossing one yarn over another; for each turn a yarn is added (from a number fastened with pins) on either side. When the edge yarn has been reached, this is turned inwards, and the plaiting then proceeds from the edges towards the centre. This gives a certain firmness and compactness to the edges, and makes the middle portion slightly thinner, as may be noticed if looked at against the light.»[1]

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Fig. 38. Legging, of deer-skin with yellowish-brown hair-covering remaining. Worn for protection against thorny plants. Choroti. Gran Chaco. Bolivia. 1/6. Rikssm. 03. 3. 383.

Sometimes the frontlets are decorated with snail-shell spangles, sewn on, although such pieces of magnificence as the frontlet here shown in fig. 41 are very rare. From fig. 42 can be seen the way this frontlet is meant to be worn. These very decorative snail-shell spangles are made from the shells of a large, white land snail (Borus oblongus, fig. 43), common in the Chaco. The Choroti do not themselves make these snail-shell spangles, but obtain them through barter from other tribes.

Narrow frontlets of woollen yarn (see fig. 30: the 3rd and 4th men from the left) or birdskin (see figs. 17 and 30: the boy who is fifth from the left) are of very common occurrence; less frequently seen are frontlets made from palm leaves, some of which are provided with chin straps, so as not to slip easily off the head (fig. 44).

At dances and other festive occasions, the men are fond of wearing particularly handsome, broad frontlets or head ornaments of stiff or downy

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[1] Compare with this a method of hand weaving described from the Choroti by Erland Nordenskiöld. Nordenskiöld (13), p. 111.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

kind, the total length of which may amount to as much as 15 metres. Thus, for instance, the ornamental outfit seen in fig. 56 consists of two necklaces, respectively 4.39 and 4.61 metres long.

Necklaces of mussel- or snail-shells of the shape shown in fig. 57 and 58 are also popular. The necklace, fig. 57, consists of 15 spangles made from shells of the common river mussel of the Chaco. The spangles, which are only slightly more than one millimetre thick, are chipped or ground into more or less circular shape, and in, or near, their centre have a perforation right through. Through these holes a string is threaded, so as to keep the spangles fixed in the way shown in the picture. On the reverse sides the spangles retain the rough, greenish brown surface of the mussel-shell; their front sides display the mother of pearl lustre peculiar to the inner side of mussel-shells. In each spangle the front face is pitted with 4 to 5 shallow borings, which either have a magical significance, or may be only designed to enhance the decorativeness of the necklace.

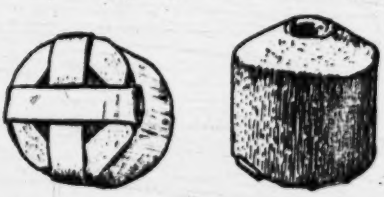


Fig. 54. Ear lobe discs, of wood with tin mountings. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 57.

Fig. 55. Ear lobe disc of wood, bored right through. On its cylindrical surface ornament has been burned in. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 56.

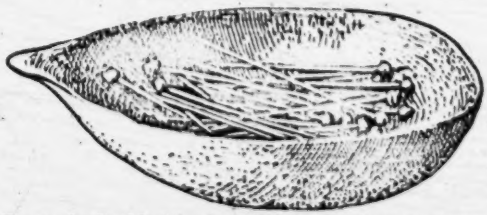
The tags on the necklace shown in fig. 58 consist of rectangular slabs of mussel- or snail-shells. These slabs, which have been very neatly chipped into shape, possess on their front sides a beautiful mother-of-pearl lustre, although they are not of such high opalescence as the spangles in the necklace, fig. 57. The front side of each tag has 3 to 5 shallow borings, the hinder side is bone white. Necklaces of this kind, with quadrilateral tags of mussel- or snail-shell, are specially characteristic of the Chaco.[1]

The Choroti have acquired glass beads from the Europeans, but such beads are far less valued than spangles or the thin plates of snail- or mussel-shells.

[1] Krickeberg (1), p. 132.

304 pattern with the cactus needles, or bone awl, until beads of blood appear, when the soot-mingled saliva is rubbed into the punctures. After healing, the tattoo marks assume a bluish colour.

302 At dances, lovers' meetings, and other important occasions, men and women paint their faces (figs. 62, 67—70 and 74—76). Face-painting may be done either in red (figs. 67—68 and 74—76) or in black (fig.



[415 439]

Fig. 77. Small calabash bowl containing cactus spines for tattooing. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 87.

Fig. 78. Red paint, ready prepared for face-painting. This lump of paint, which is wrapped in a sheath of palm leaf, may possibly have reached the Choroti by barter from the Chiriguano. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 104.

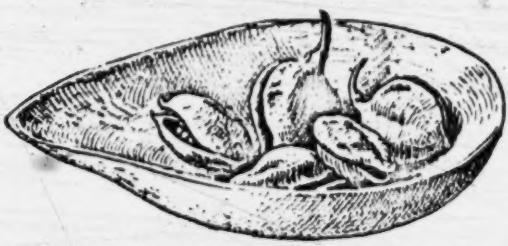


Fig. 79. Small calabash bowl containing fruits of Bixa orellana. From the seeds of these fruits colour is prepared for face-painting. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 103.

Fig. 80. Miniature bowl of wood, holding colour seeds. The bowl and the seeds have possibly been obtained by the Choroti through barter with the Chiriguano. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 180.

69), or in both red and black (fig. 70). Painting the face in red is commonest. The black paint consists of soot and saliva, whilst the red colour (fig. 78) is prepared from seeds of Bixa Orellana (fig. 79). These seeds are usually obtained by barter from the Chiriguano, and are carefully kept by the Choroti in small calabashes. I have also seen miniature wooden bowls (fig. 80) used as receptacles for these colouring seeds after they have been taken out of the follicle.[1] The soot is usually kept in a

[386 439]

[114]

[1] Owing to a mistake having occurred as to the identity of seeds, in my first treatise on the Choroti I have erroneously stated that the red paint used in face-painting is made from the seeds of Caesalpina melanocarpa.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Apart from split-cane combs, the Choroti also have wooden combs, 302
carved in one piece (figs. 86 and 87). It is probable that formerly the Choroti did not themselves make as well-made combs as the one reproduced in fig. 87, as, until quite lately, the Chaco peoples have been without good cutting implements of stone or metal. Among the considerably higher cultured Chiriguano, who, for a certainty, have long possessed metal tools, carefully worked wooden combs are very common. It is therefore possible that the neat-looking comb shown in fig. 87 was made among the Chiriguano, although it may subsequently have reached [439]
the Choroti through barter. As I have previously pointed out, there are certain toilet articles, viz., colour seeds and ready-prepared red paint, of which the Chiriguano dispose to the Indians of the Chaco. The Choroti keep their toilet articles, not only in bowls and boxes of calabash, but also in miniature bags of caraguatá (fig. 88).

On account of the dearth of water that periodically recurs on the 515
Chaco, the mere nature of their country makes it impossible for many of the Choroti to observe the same bodily cleanliness as the Chiriguano. But even if the Choroti were well off as regards water supply, I do not believe that they would to any appreciably greater extent indulge in any bathing or washing *intended for the better care of the body*. For, it must be said, the Choroti do not possess anything like the Chiriguano's sense of cleanliness.

Nordenskiöld, who has had opportunities of studying the Choroti Indians on the Pilcomayo, where of course they had plenty of water, writes as regards their lack of cleanliness, inter alia, as follows: »Never did I see an Ashluslay washing his clothes, nor any Choroti, unless they had learnt it from the whites. And to bathe, just for the sake of bathing, is a thing these Indians would only do, I should think, when the weather is really hot. Fishing, however, of necessity takes the men a great deal into the water. The children often play about in the water, too, which makes for keeping them clean. And the 'wee-wee ones' get washed by their mothers when the latter go down to the river.»[1]

»Caring for the body», among the Choroti, is mainly limited to de- 515
corating the face by painting, combing the hair, picking out lice, and 302
pulling out all hairs on the face and about the private parts. Painting,

[1] Nordenskiöld (18), p. 78.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

361 166 gards the Choroti, he, on Karsten's authority, mentions the interesting fact that these Indians sometimes are compelled to make a change of dwelling-site only on account of the appearance of excessive swarms of noxious insects (principally locusts).[1]

484 464 It is only in later times that the Choroti to any greater extent have come in to work on white men's sugar plantations. These plantations are mostly situated in Argentine territory, and therefore the Indians often have to make journeys of several weeks, in going to, or returning from, their place of work. Such Indians as go to the plantations only work for a few months for the whites, and then return to their own locations, there to spend the rest of the year in the wilds of the Chaco. Whilst at the plantations, they live in Indian villages they build for themselves, and in many ways carry on their primitive life.

166 I will also mention two other reasons for migration; now, however, only seldom obtaining among the Choroti, viz., fear of other Indian tribes and of reprisals for misdeeds committed against the whites. Concerning the latter cause for migration, I have already mentioned that a part of the Choroti tribe disappeared into the interior of the Chaco, after having in some way transgressed against white people who had settled in their country.

439 The Choroti Indians also engage in trading, and their chief article of barter is dried fish. In the Pilcomayo they are able to catch more fish than are required for their own consumption, and they therefore dry the surplus and take it to other parts, inhabited by Chiriguano and Chané, where fish is less plentiful. These latter Indians buy the fish by giving in exchange maize, red colouring-stuff (for face-painting) and other articles. Nowadays the Choroti also obtain iron, clothing, and other wares, by trading with the whites at the sugar plantations.

The snail-shell spangles that have been described in the foregoing are an important article of trade in the Chaco. The Choroti, according to their own stating, obtain spangles — separate, as well as strung into ready-made necklaces — from tribes living in the eastern Chaco. On Rio Parapiti Nordenskiöld has seen spangles of this kind among the Tapiete Indians, who told him they had got them by barter from the Ashluslay, and the latter that they, in their turn, had obtained them

[1] Nimuendajú (1), p. 33.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

from a tribe they called Manslé, said to be living in the neighbourhood of Rio Paraguay.[1] Thus the spangles of which the Tapiete were in possession had, by way of trade between the tribes, been transported *at least* 360 miles from the place where they had been made.

Among the Choroti, the long spangle necklaces (as seen in fig. 56) served them as a kind of currency. So, for instance, the value of an Indian woollen mantle was expressed in a certain number of arm-lengths of such a necklace, and that of a head of cattle in some other, definite, number of arm-lengths. In gambling, the stake often consisted of snail-shell spangles or whole necklaces.

There were also other objects which formed articles of trade between the Indians. On page 81 I have mentioned a wooden comb which probably originates from the Chiriguano, and on page 78 I have reproduced a small wooden bowl containing colouring seeds that have probably come from the same tribe. The child's poncho, fig. 35, has probably been bought by some Choroti from an Ashluslay; it is also possible that a few other objects in my collection have found their way to the Choroti Indians through barter with neighbouring tribes.

[1] Nordenskiöld (13), p. 127.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

283 Chaco, a circumstance I have pointed out in the foregoing. At its thickest part, the diameter of the spindle should be somewhat larger than the diameter of the hole through the whorl. The thinner end of the spindle is passed through this hole, and the whorl is then slid downwards until it gets fixed on account of the thickness of the spindle (see fig. 143). If the hole has happened to have been made too large, so that the whorl would slip off, the thickness of the spindle immediately below the whorl is increased by the application of a heavily waxed binding (see fig. 142).

Fig. 144. Knife-like weaving implement (batten) of hard wood Choroti. Gran Chaco. Bolivia. 4/0. Riksm. 10. 3. 91.

286 Personally I have not seen the Choroti do any weaving, but from this tribe Nordenskiöld has described a very primitive method of fillet weaving: »For a loom, the woman used her own body; the fillet she was weaving was fastened to her big toe, and her hand she used as a batten. In this way she was weaving. the fillet without using any other implement than her extremities.»[1]

For all that, the Chorotis do possess weaving implements, which, among other things, is evident from the weaving batten reproduced in fig. 144. It is carved in one piece out of some hard, heavy wood. The transverse section of the handle is oval, and the blade has two rounded edges.

283 The Choroti make excellent ropes of bast (fig. 145), by twining. One such rope, which I bartered off them, is 11.74 metres in length. At one end of it there is a running noose, and it has probably been used as a lasso.

412 439 At the time when I visited the Chaco, iron was still of such rarity that it was but seldom I saw an iron knife among the Choroti. We had brought with us, as articles for bartering, long, Argentine knives, and with them the Indians were highly delighted. These knives were not used by the Choroti for carving wood with, but principally as carving instruments in cutting up meat.

412 The Choroti knife, which is reproduced in fig. 146, is a very primitive tool, with a one-edged blade, about 1.5 mm thick, of untempered sheet-iron. The upper part of the blade is wedged into a partly cleft wooden handle, which is covered

[1] Nordenskiöld (13), p. 111.

Q [should be Choroti. -Analyst]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

»When the old men have felt themselves properly tuned up, then they have painted my face black with soot and spittle. They have wanted to pull out my eyebrows and eyelashes, and they have laughed my long and ugly beard to scorn, and they have wanted to bore through my ears.

»All during these drinking carousals, when everybody was drunk, I have never heard a hard word spoken; never noticed the slightest quarrel arising. When the Indian is full of his home-brewed beer, he is not pleasant, but he does not get insolent; he belongs to the type of drunkard who wants to embrace everybody, and in whom the manifestations of friendliness become unpleasantly exaggerated. He gets blatantly valiant, and shouts about warlike deeds. He discusses plans of campaigns, but has forgotten all about it when he is sober again. He sings and he is happy.»[1]

The Choroti Indians are inveterate smokers. As the tobacco which these Indians grow and prepare is of a very inferior quality, they are keen on bartering tobacco off the whites. Frequently the Choroti mix their tobacco with shavings of an aromatic tree bark.[2]

Tobacco pipes consist of pieces of bamboo, fig. 153, or wood, figs. 154—161. The latter are straight, that is to say, the longitudinal axis of the tobacco retainer is in a straight line with the longitudinal axis of the stem.[3] The pipes of bamboo are straight, or of a slightly curving bend, fig. 153. Choroti pipes are as a rule made in one piece, figs. 153—161, but composite pipes (pipes with the stem fitted into the bowl) do occur, although they are exceedingly rare.[4]

The pipes have in the forward end, as a rule, a funnel-shaped depression in which the tobacco is stuffed (the tobacco retainer). From the bottom of the funnel the smoke passes through a channel, the diameter of which is only a couple of millimetres in the part nearest the tobacco retainer but usually widens towards the opening of the mouthpiece (see sections, figs. 153—161). In pipes with a wide mouthpiece opening, the latter as a rule is provided with a vegetable fibre filter, which cleanses

[1] Nordenskiöld (13), pp. 89, 91 and 92.

[2] As to Indian conceptions of intoxicating beverages, tobacco and other narcotics, see for example Karsten (6), pp. 28—72.

[3] The Ashluslay, neighbours of the Choroti, possess both straight and angle-bent pipes. In the Ashluslay pipes of the latter kind the longitudinal axis of the tobacco retainer and that of the stem form an angle of about 90 degrees. Nordenskiöld (13), figs. 41—43.

[4] A composite pipe from the Choroti is reproduced and described by Nordenskiöld (21), fig. 8.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

A C 412 are their knives, saws or scrapers and awls of very hard wood. The knives (fig. 12) are used, for instance, for cutting up fish and fruit, the saws for cutting off caraguatá boughs and for grating the «Mandioca del campo» (manioc). Such tools of wood are unknown among now living Indians, save in the Chaco. Occasionally flat bone knives are seen. I have seen them among the Tapiete and the Atsahuaca, as well as among the Choroti, and the Ashluslay. The wooden tools were originally made in this way: when there had been a

Fig. 13. Iron Knife, Choroti. G. M. (D. 1027) 1/2.

Fig. 12. Wooden Knife. Choroti G. M. (D. 1025) 1/2.

forest fire, suitable pieces of wood were selected, which were then shaped by means of the fire and pieces of shell. They are now cut by knives obtained from the whites.

A C [439] By their migrations to the sugar factories in the Argentine, the Chaco Indians have obtained many iron tools. Where iron is still rare, all the pieces of iron are preserved that can be utilized. In Fig. 13 is shown a piece of iron used as a knife, it having received a shape similar to that of the original wooden knives.

The *wooden knives*, as we have seen, are of a square shape. This shape may possibly not have originated in the Chaco. I have found similar stone knives (Fig. 14) in my excavations

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI12
Choroti SK6

M 574

remain silent, perhaps muttering some menacing words. This is particularly the way in which the Tobas receive undesired guests. The best thing for a visitor so received is to leave the Indians as soon as possible, since these treacherous and daring savages would not shrink from taking his life.

C 576

When the Choroti guest leaves the house where he has paid a visit he always says: *yápeh*, or: *ayápeh*, »I go», or »I go back (to my own house)», to which the host only answers: *mah*, »go on!», »hurry on!». The Toba guest, on leaving, says *malhék*, or *kíuo* or *málhe'giuo*, (»I go», »I go back to my house»), the host answering with the word *hamóh* (»hurry on!»).

C 439

The *Choroti* barter with those foreign tribes with whom they maintain friendly intercourse, their own most important article of exchange being dried fish. From the Guarani-speaking Tapiete Indians, and in some cases from the Avas, they receive especially the much appreciated cereal, maize, as well as the red *urucú*-paint, indispensable for painting the face and the body on festival occasions. The *urucú*-shrub, it should be noted, requires a purely tropical climate and does not grow in the Chaco. On the other hand the Choroti barter with the Ashluslay in the south, receiving from them among other things one of their most costly ornaments, a necklace consisting of small buttons cut out from snail's shells and strung closely together. Such a necklace is from three to six yards in length, and is highly valued not only as a pure ornament but also on account of the magical properties ascribed to it. The receiving of these necklaces from the Ashluslay seems to be but a transit-trade, for the latter Indians in their turn buy them from the tribes in the interior of the Chaco, probably from the Lenguas, who according to Mr. Grubb, make such necklaces. Mr. Grubb adds that »these strings of buttons are the money of the people» and that the value of a big necklace is one sheep.[1] As a matter of fact, the Choroti when bartering with the Ashluslay pay one sheep each for these necklaces.

C [435 436]

Of more interest are the commercial connections which the *Tobas* have with neighbouring tribes, especially with the Mataco-Nocténes in the west and the Avas in the north. At any rate there is frequent intercourse between the Bolivian Tobas and the Avas living at the Catholic missions Tarairi, Tihüipa, and Machareti. In connection with the visits which these Indians are in the habit of paying to the country of the Tobas, I had an excellent opportunity of studying primitive Indian trade. The

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[1] Grubb, *op. cit.*, p. 71.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

114 of the chaguar (chahuar).[1] This statement, which is erroneous, is due to
262 the similarity of sound existing between chaguar[2] and chañar.[3] The *fruits* of the latter are eaten by the Indians, whilst of the former only the rootstock is edible.

251 By drying, the Choroti preserve vegetables against seasons of shortened food supply.

263 Personally I have not seen the Choroti use salt, but, nevertheless, they possess this condiment. Possibly they, like the Lengua, extract salt from the ash of a plant growing on the Chaco.[4] Salt-making from vegetable ash is known to many primitive peoples.[5]

264 Among the Choroti I never saw men and women eating together.

[462] The preparing of food is, as a rule, the work of the women. The
515 Choroti are not dainty about their food, and the uncleanliness which is
252 a distinguishing trait in culinary matters among these Indians surpasses almost anything I have ever observed among other primitive peoples, with the exception of the Mataco Indians. Of the latter, however, my experience is limited to only a few families, and it may be unfair to judge the whole tribes from those.

271 Water, often muddy, ordinarily forms the drink of the Choroti. When in the dry season the Indians are on the move, or from some reason or other find themselves far away from any river, they sometimes suffer very badly from lack of water.

273 In the season for harvesting wild fruits, such as algaroba, tusca, and chañar, an intoxicating fruit beer is brewed. During the time of year that I visited the Choroti, there were no fruits of which any intoxicating beverage could be brewed; consequently I never had an opportunity of observing either the brewing of beer, or any drinking carousal. This led me to suppose that the art of brewing fermented liquor was unknown to the Choroti. Nowadays the Choroti have learnt from the Chiriguano also how to brew maize beer. Of the Choroti method of beer-brewing, Nordenskiöld has given the following description:

»When tusca beer is to be made, the fruit is first of all ground, and they water added, the whole being thereupon left in a dirty animal hide,

[1] von Rosen (3), p. 9.
[2] Bromelia serra.
[3] Gourliea decorticans.
[4] Hawtrey (1), p. 287.
[5] For one method of producing salt from plants, see von Rosen (4), p. 240.

wife. Not infrequently it happens that two or more girls become enamoured of the same man. Then fierce fights are often fought out between the rivals, who in these encounters sometimes use knuckle-dusters or sharp-pointed bone awls (see fig. 111). The Choroti girls have a somewhat peculiar way of demonstrating their tender feelings towards their beloved; they do not kiss him, but scratch him with their nails and spit in his face![1]

When a woman has been taken to wife by the man she has chosen, the latter comes to live in her village, at least for some period of time.[2]

Division of labour as between the sexes among the Choroti.

M = men; W = Women.

Rearing and care of livestock	M[3]	W[3]
Fire kindling, by drilling	M	
Collecting fuel		W
» wild growing, edible plants		W
» wild honey	M[3]	
Hunting and catching game	M	
Preparing the food	M[4]	W
Cultivation of food plants	M	W
Wool and cotton spinning		W
Sewing	M[3]	W[3]
Manufacture of feather ornaments	M	
» » articles of calabash	M	
» » pottery		W
» » articles of leather	M	W[3]
» » fishing nets	M	
» » articles of wood	M	
» » weapons	M	
» » bags, knitted of caraguata yarn		W
» » » » » woollen »		W
Load carrying		W
Hut-building	M	W
Weaving		W[3]
Drawing and carrying water		W
Beer brewing	M[5]	W[3]

The heavier burden of work undoubtedly falls to the lot of the women. It is their business to gather edible fruits, to carry home fuel and water, to prepare the food, and, of course, also to tend the children. When the tribe is travelling, it is the women who carry the household furniture and

[1] Nordenskiöld (13), p. 81.
[2] Nordenskiöld (13), p. 83.
[3] According to Nordenskiöld (13), p. 87.
[4] Roasting the food. According to Nordenskiöld (13), p. 87.
[5] Beer fermenting, only. According to Nordenskiöld (13), p. 87.

[Text continues on p.163]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

equipment in large carrying-nets and bags; at such times the men march along unburdened, carrying in their hands only bow and arrows. This is, however, easily accounted for, as on the trek the men have always to be prepared to kill game for procuring food. If they, like the women, were hampered by heavy loads, they would practically have no chance at all of taking a ready arrow shot at game encountered on the march.

I never once saw grown women amusing themselves with any games or sports, whereas this is frequently the case with the men. The chief occupations of the latter consist of hunting, fishing, the gathering of wild honey and the manufacturing of various weapons and implements (see the above table of division of labour as between the sexes). The men give considerably less time to actual labour than the women, and to me it seemed as if the life of Choroti wives was hard and laborious, whilst that of the men, as a rule, was pretty light and easy-going.

Nevertheless, the men are by no means hard or cruel to their wives, and it appeared to me as if the women took it as a matter of course that they had to work for their husbands and children in the way they did, and, generally speaking, they seemed quite content with their lot in life. Indeed, I noticed many instances of real domestic happiness.

Parents bear great love to their children. These, when quite small, are carried by their mothers in a broad strip, or piece, of cloth in the way fig. 180 shows. The Choroti do not have many children; it is only seldom that the number of children exceeds four. According to Nordenskiöld, they are given names only when old enough to answer to them. The same author has noted down the following Choroti names, of which the first three are men's names, and the remainder women's names: Yóseliamíe (the killer of foxes), Hotenic (Mataco), Éstiáhua (a gallinaceous bird), Hayku (not sweet), Kósoki (suffering from skin eruptions), Asóshnialo (women in plenty).[1]

Parental authority does not amount to much, and actual bringing up and discipline is entirely out of the question. In cases where parents attain so great an age that they become irksome to their children, it is not unknown for the latter to kill them. Nordenskiöld's interpreter, Flores, once witnessed a Choroti man burning an old and decrepit woman alive. Old men and women, who are suspected of working evil by witchcraft, are sometimes burned alive, and therefore it is possible that belief in the

[1] Nordenskiöld (13), p. 85.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

XXI.

Carrying-utensils.

In the Chaco all heavy loads are carried by women. Like all South American Indians they carry heavy weights on the back and never on the head. The load is fastened by means of a band around the forehead. (Fig. 45)[1]. This is the one method of carrying known in S. America. The other is to fasten the load across the shoulders and round the chest. (Figs. 43 and 44). The pressure on the chest is generally equalized by holding with one hand the rope tied across the chest.

The Chaco tribes with whom we are here concerned bear their burdens in nets, never making use of baskets. In the accompanying table is indicated, by way of comparison, how the different tribes whom I got to know on my journeys bear their burdens.

On an examination of the literature dealing with the bearing of heavy loads by various Indian tribes we find that, in the greater part of S. America, the method is for the burden to rest upon the back, and to be fastened around the forehead. Only in the western and southernmost parts of S. America do the Indians carry heavy burdens in such wise that the burden rests on the back and is then fastened around the shoulders and chest, as e. g. among the

[1] Sometimes the bearer, in addition to the brow bands, has also bands across the shoulders. I have never seen these, however, in the Chaco, and elsewhere only among Indians serving white men as bearers.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

C 562 C [162] C [847] C 562 462 591 583 M 562 584

are due — at least in part — to geographical causes. As to the Choroti, it is to be noticed that among them the women in general have great social importance, to such an extent in fact, that we may speak of a real gynaecocracy. This is in the first place due to the numerical disproportion between the sexes which, at least at present, exists in this tribe. The causes of this phenomenon are difficult to assign; there is for instance, no general custom of killing new-born female children which would account for it. Infanticide is indeed practised in the case of monstrous children and twins, but it has reference to male children as well as to female. Female children are appreciated perhaps more than male children, for the very reason that women are so few in the Choroti society. Whatever the real cause of the numerical paucity of the women, it is this fact which explains their social influence. Besides this, we have to take into consideration the strict division of labour between the sexes existing among the Indians. For instance, sowing and planting, the carrying of fuel, the gathering of wild fruits, the brewing of intoxicating drinks, and a good deal of other home industries are wholly or chiefly incumbent on the women. This to the Indians means that no man *can* successfully do work which custom prescribes shall be done by a woman. A consequence of this is that particular importance is ascribed to female work as such and that women in general are held in great esteem. From this point of view we must also explain the custom that a man who marries must go and live with his wife's family. It is mainly due to the reluctance of her parents to separate from her on account of the work she performs. Among the Choroti no compensation is given for a bride, because no bargaining of any kind whatever takes place between the members of the tribes. Instead of that, custom prescribes that the young husband shall render services to her parents, which is only possible if he stays with the family of his spouse for a longer or shorter time. In this way matrilocal marriage in the Choroti and other Chaco tribes seems to me to have originated, although the Choroti at any rate are not now aware of these services being really obligatory and a form of compensation for the wife. Marriage among them appears now as a wholly private affair based upon the voluntary agreement of both parties. But where a matrilocal marriage has developed, the children are naturally looked upon as belonging in the first place to the mother and to her tribe or clan, whereas the husband's importance as a family father is only secondary.

The same kind of »mother-right» and gynaecocracy also prevails, or prevailed formerly, among the *Mataco* Indians who, for instance, allow

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba 5/12
Choroti SK 6

M T C 273 462 415

We have already seen that the most appreciated of these drinks is algaroba beer, which by the Mataco and the Choroti is called *atäs*, by the Tobas again *maplyi*. The tree itself and its fruit is called *oáh* in the Mataco and the Choroti language, in the Toba language *map*. The sacred beer is prepared with the utmost care and with certain religious or magical ceremonies. At this preparation there appears a strict division of labour between men and women. Although the women are not allowed to drink of the beer, they seemingly perform the larger part of the work. They collect the fruit in the forest, carrying it home in their large caraguatá bags, and afterwards mash it in mortars. Some old women start to chew the fruit, mixing it well with saliva, whereupon they spit it out into a goat's hide, fixed in the ground by means of sticks in such a way that it forms a sort of vessel. The goat's hide is used by the Choroti and by the Argentine Mataco, whereas the Tobas and the Bolivian Mataco use a wooden trough for the purpose. Lastly, hot water is poured over the mashed fruit.

M T C 273 [462]

These preparations require nearly a whole day. The most essential thing still remains, namely the fermentation, and to effect this is a duty solely incumbent on the men, since women as a rule do not take part in conjurations. The fermentation is sacred, because it means the birth of the good spirit. Now this happens in the night, but night is the time when evil spirits move about. According to the belief of the Indians, the invisible persecutors appear in great numbers in order to prevent the birth of the good spirit and interfere with the drink so that it cannot ferment and is entirely spoiled. Therefore special precautions must be taken for the critical time. The brewing of the algaroba beer for the great festivals during the algaroba season is — especially among the primitive Choroti — a matter that concerns the whole community. Hence, at the approach of night, the men arrive from all houses with their rattle gourds, sit round the hide or trough, and begin to chant a noisy, monotonous song without words, shaking the rattles in the rhythm of their chant. This ceremony is called by the Choroti *nissammaha oáh*, by the Tobas *niapilák map*, and its most conspicuous object is to prevent the spirits from spoiling the beer. Since the new moon is believed to promote fermentation, a moonlight night is preferably chosen for the ceremony. The chant is typical of the Indian conjurations in the Chaco. It is always begun in a loud voice; then the voice gradually dies down, so that the last tones are only heard as a low and distant muttering. Thereupon they start again from the beginning, and so forth. In addi-

M T C [821]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

361 166 gards the Choroti, he, on Karsten's authority, mentions the interesting fact that these Indians sometimes are compelled to make a change of dwelling-site only on account of the appearance of excessive swarms of noxious insects (principally locusts).[1]

484 ●464 It is only in later times that the Choroti to any greater extent have come in to work on white men's sugar plantations. These plantations are mostly situated in Argentine territory, and therefore the Indians often have to make journeys of several weeks, in going to, or returning from, their place of work. Such Indians as go to the plantations only work for a few months for the whites, and then return to their own locations, there to spend the rest of the year in the wilds of the Chaco. Whilst at the plantations, they live in Indian villages they build for themselves, and in many ways carry on their primitive life.

166 I will also mention two other reasons for migration; now, however, only seldom obtaining among the Choroti, viz., fear of other Indian tribes and of reprisals for misdeeds committed against the whites. Concerning the latter cause for migration, I have already mentioned that a part of the Choroti tribe disappeared into the interior of the Chaco, after having in some way transgressed against white people who had settled in their country.

439 The Choroti Indians also engage in trading, and their chief article of barter is dried fish. In the Pilcomayo they are able to catch more fish than are required for their own consumption, and they therefore dry the surplus and take it to other parts, inhabited by Chiriguano and Chané, where fish is less plentiful. These latter Indians buy the fish by giving in exchange maize, red colouring-stuff (for face-painting) and other articles. Nowadays the Choroti also obtain iron, clothing, and other wares, by trading with the whites at the sugar plantations.

The snail-shell spangles that have been described in the foregoing are an important article of trade in the Chaco. The Choroti, according to their own stating, obtain spangles — separate, as well as strung into ready-made necklaces — from tribes living in the eastern Chaco. On Rio Parapiti Nordenskiöld has seen spangles of this kind among the Tapiete Indians, who told him they had got them by barter from the Ashluslay, and the latter that they, in their turn, had obtained them

[1] Nusselin (1), p. 35.

Choroti SK6
Mataco SI7
Güisnais

Ci 301 302 171 /321 cont./

Doubtless through being very close to the Toba, they pierce their ear lobes, in which they put pieces of wood, and they also stain their faces.

Ci 648 [464]

In the expeditions to the Paraguay they have never shown themselves to be hostile to the whites and soldiers; rather they have lent important services and it was they who saved the life of Señor Touvar and his companions when they became separated from the expedition. Therefore the reduction of these Indians to civilized life would be very profitable.

Güisnáis

M 131 101

These Indians occupy the western bank of the Pilcomayo facing the Choroti Indians and southwest of the region occupied by the Mataco. The geographic degree of their territory, with a very slight difference, is the same as that of the Choroti, since they are separated from the latter only by the river bed.

M 101 181 241 231 197

They are a division of the Mataco; they speak the latter's language with very little difference; their customs are nearly identical and their number quite small. They are of a peaceful nature like the Choroti, and like them, they plant gourds and other vegetables. They also devote themselves to the raising of domestic animals, such as cows, horses, sheep, goats, and chickens.

M 167 177 464 224

Even the Güisnáis frequently come out for jobs in the Argentine Republic, from where they also bring back weapons, in order to use them particularly in the woods, killing birds, wild boars, deer, and other quadrupeds.

M 174 771 776 [756]

They have more religious ideas than other tribes, and it seems that their great-grandparents might have belonged to some former Argentine mission, because, more than others, they recognize a true divinity. /322/ Nonetheless in their great ignorance they confuse ideas, and in great fear they recognize in sorcerers a power that they do not have.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI12
Choroti SK6

CHAPTER I.

My travels in the Gran Chaco.

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In October 1911 I arrived in Buenos Aires by an English steamer, proceeding directly from London, and a few days later continued my journey by railway to my future field of research. The Argentine government, to which I was introduced by the Russian minister in Buenos Aires, Count Maximoff, did everything to facilitate my undertaking and even offered me an escort on my journey to the Indians — an offer which however I was obliged courteously to decline. My nearest goal was the sugar factory of Esperanza, situated about three miles from the small town San Pedro in the province of Jujuy in northern Argentine. At this factory thousands of Indian labourers are employed to cut the sugar cane in the fields surrounding the village. Among these native labourers almost all Chaco tribes are represented — especially the Tobas, the Mataco and the Choroti — and there are instances of Indians arriving from the interior parts of the country where no white man has yet put his foot. Here I had an excellent opportunity of making preliminary acquaintance with the Indian tribes whom I proposed to visit later on in their own land.

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I was received with great kindness and hospitality by the owners of the sugar factory, the great English firm Leach Brothers, who helped me to get into contact with the Indians. At Esperanza I stayed for three weeks, making preparations for my expedition into the Chaco, so that it was not until in the middle of November that I could set out upon my journey. From San Pedro de Jujuy it is only a few hours railway journey to Embarcación, which at that time was the last station towards the north. From there on one could only travel on mule-back along the road which from Embarcación goes to southern Bolivia. Messrs. Leach had helped me to buy the mules at Esperanza and also got two peons to accompany me at least on the first part of my expedition.

89

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

had their dwellings far from any fishing water, I myself never saw these Indians engaging in fishing. As they had, however, brought with them their fishing gear (except the frameworks of their landing-nets), I succeeded in making a good collection of this kind of implement. 226

The Choroti fish with nets (using them as landing-nets), fish-hooks, and with bow and arrow. The last-mentioned fishing method, which, as far as I know, has only been observed by Moberg a Swede, is, however, only used during the latter part of the rainy season.[1]

The nets are either fastened so as to fill up the angle between two rigid poles, which are tied together by their lower ends (fig. 113), or between two supple rods, tied together at both ends (fig 114). The angle-set poles, and the rods, seem as a rule to be about 3 m in length. These fork poles and rods (dip-net frames) the Choroti had not troubled to bring with them to their dwelling site — far removed from any fishing water — in the neighbourhood of Tatarenda, and therefore my description of these implements is founded on two specimens preserved in the Gothenburg Museum, and on such photographs[2] and information as Nordenskiöld has kindly given me.[3]

When fishing, the Indians often split up into two parties, one of whom make a bar across the river with the nets that are stretched between poles (the barring-nets), which are then held so that the points of the fork rest on the bottom of the river. The other party of fishermen drives the fish towards the barring-nets, at the same time using their nets that are fixed between two rods (dip-nets) for catching fish.[4] These latter nets are used like large landing-nets, and, by means of the flexible rods, can be opened and closed. The Choroti have no water craft of any kind (not even rafts), but do their fishing swimming or wading. When fish is scarce, the Choroti block up the Pilcomayo with pole-built fences that, here and there, have openings in them. In front of these, the Indians sit on small platforms (figs. 114 and 115), and fish with dip-nets. When the weather is cold, or when fish is to be fried, fire is made on the platforms, which are isolated from the fire by means of a layer of river mud.[5] These 501 481 343 226

[1] Nordenskiöld (11), pp. 60.
[2] Nordenskiöld (13), fig. 8, 11 8, plate 14', and Karsten (2), the figure on p. 34.
[3] Letter dated 14. 7. 1921, Ruckelstad collection of manuscripts, volume 1921, letter N.
[4] Nordenskiöld (13), p. 43.
[5] Nordenskiöld (13), p. 44.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6
Ashluslay SK5

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Fig. 113. Ashlushlay fishermen with barring nets. Pilcomayo. Gran Chaco, Bolivia. Sketched from a photograph by Erl. Nordenskiöld.

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little water platforms are constructed in about the same way as the food-storing platforms, or cooking sheds, that the Choroti build on dry ground (see p. 38). The only difference is that the two horizontally placed sticks that support the platform (the roof) in the latter, are resting in natural forks formed by the top ends of the uprights (see fig. 28), whilst the two sticks that support the platforms (the floor) of the river structures rest against bindings which have been tied round two uprights driven in close together. This arrangement almost certainly aims at the possibility of raising or lowering the platform in accordance with the level of the river water. In all other respects there is very great resemblance between the platforms that are built in rivers (fig. 115) and the cooking sheds built on dry land (fig. 28). In chapter VII I have tried to show how pile structures on firm ground have inspired the idea of building similar structures in water (see pp. 192—199 and 38—47).

The Choroti are so much at home in the water that they are able, whilst swimming below the surface, to catch fish with their dip-nets.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

136 481 292 I have mentioned that the Choroti do not possess any water-craft, so that when fishing with nets they often have to wade or swim. In doing this, they expose themselves to being attacked by palometa fishes. As a protection for their legs in wading, the Indians occasionally wear a kind of mail stockings of caraguatá (see p. 54), but when they are swimming, they often get badly mauled by these fierce fishes, and I saw several Choroti with enormous scars from the bites of palometas (fig. 53). It also happens, now and again, that Indians, whem swimming, get killed by caymans, which, here and there, are plentiful.

[286 824]

Fig. 118. Mesh-spacer of palo santo (Bulnesia sarmienti). Length 14.0 cm, width 3.0 cm; thickness along longitudinal axis 0.9 cm. The thickness decreases towards the longer edges, which are rounded. Choroti. Gran Chaco. Bolivia. Riksm. 03. 3. 242.

222 In the collection of the fruits, roots and pith of wild plants the Choroti possess an important source of subsistence. The Chaco Indians obtain edible fruits from, inter alia, the algaroba (Prosopis alba), the chañar (Gourlica decortitans), the mistol (Zizyphus mistol) and the tusca (Acacia aroma). The rootstocks of the caraguatá, or chahuar (Bromelia serra), plant are used for food by these Indians, and the same applies to the pith of the fan palm (Copernicia australis). For pulling down within reach the fruit-bearing branches of trees, the Indians make use of wooden hooks with a short arm and a long one, the latter then serving as a handle, whilst the tree branch which is to be bent down, is hooked with the shorter arm of the implement.[1] In digging up the spiny caraguatá plants the Choroti use a forked stick.[2]

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Fig. 119. Fishing hook of iron, with line of caraguatá fibre. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 238.

Fig. 120. Fish club of palo santo (Handle upwards). Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 87.

At the time of my stay among the Choroti, the part of the tribe with whom I was in touch carried on no other agriculture than the growing of pumpkins in a primi-

[1] Nordenskiöld (11), fig. 3.
[2] Nordenskiöld (13), fig. 49.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

X.

Domestic Animals and Objects connected with them.

A C 231 The Choroti and the Ashluslay keep dogs, horses, cows, sheep, goats, fowls and cats. Of these the *dog* is the only native domestic animal. The dog is very widely distributed in America. In many cases it is difficult to decide to what extent he has spread beyond his original domain in post-Columbian times. I do not know whether the Chaco dog has been crossed with dogs of European breeds, but in any case he has a very characteristic appearance, and is worth studying by a specialist.

We know that the Indians of the Argentine pampas and of the Chaco Austral became real equestrians soon after the Discovery of America. Their whole life was changed and adopted to the horse.

A C [481 492] The Ashluslay and some of the Choroti also have horses, and *breed horses*. But they are not equestrians, and usually go on foot. Owing to the introduction of horses, they have adopted this and the other accessory to a horseman's equipment, among other things, curious *spurs* of forked wood. (Fig. 11).

The Ashluslay Indians have numerous cows and sheep, and a smaller number of goats. Among the Choroti we find sheep and goats, and few cows. When the cows are killed, their flesh is used; but this may be said to happen rarely.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

or large calabashes, to ferment. One certain night, I was present at a beer-fermenting in a Choroti village. Proceedings commenced by two men sitting in the men's club house on either side of the fire, singing, with their backs to each other, and beating time with calabash rattles. After a while they continued this round about the hide in which the brew was fermenting. A man and a youth were singing, accompanied by a rattle, turning their faces up to the moon. Elsewhere, here and there, other men were bawling and plying rattles. Then the earthenware drum was brought

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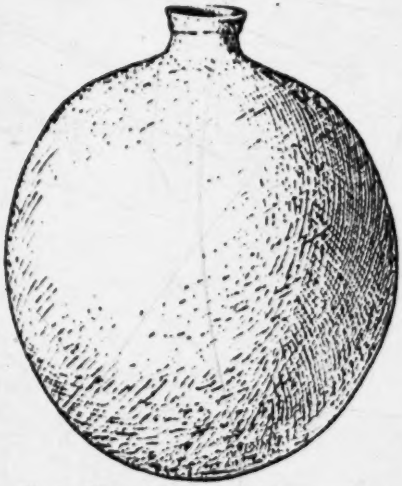

Fig. 133. Water pitcher. Yellowish brown earthenware. Choroti. Gran Chaco. Bolivia. 1/4. Rikem. 03. 3. 145.

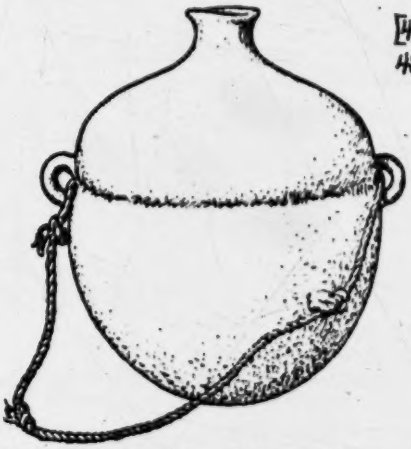

Fig. 134. Water pitcher with carrying cord of caraguatá. Reddish-brown earthenware. Choroti. Gran Chaco. Bolivia. 1/4. Rikem. 03. 3. 146.

[415 482]

out, and placed on a ring formed of straw. Monotonous drum beats thereupon gave accompaniment to the singing. This stopped about midnight, and there was a rush down to the river where some fishing was done, with a fairly good result. The fish was then grilled and eaten. This night supper having been satisfactorily discussed, singing was resumed and went on, supported by one drum and four rattles. The songs seemed to me to consist of nothing but refrains, something like: 'huh, huh, huh, huh, huh, lah eh lah, huh, lah eh lah, . . . huh, huh, huh, lah eh lah'. The singing was at first low, then suddenly rising in loudness, then again subsiding low. Many were raucously bellowing in unison. When one lot

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

273 of singers were tired out, others took their turn. In the morning there was some more fishing, and for breakfast was drunk the tusca beer that had been made with so much trouble, after having been strained through a dirty bag, and served up in calabash bowls. The Choroti believe that by singing they hasten the fermentation of the beer.

The tusca beer is of an acidulous, refreshing taste, but has a sickly smell.

The fruits of the chañar are boiled, whereupon the mixture is allowed to ferment.

The fruits of the algaroba are ground, and warmed up in water, then, like the foregoing, the brew is left to ferment in huge, filthy, calabashes, or in very large troughs of the wood of the bottle-tree.[1] I have seen the Ashluslay preparing yeast by chewing part of the ground algaroba, and then spitting it out into the rest. Chañar beer is of a sour-sweet, somewhat nauseous, taste; algaroba beer is good. The latter has a sweet, somewhat astringent, taste. When long fermented, it is highly intoxicating. Maize beer I have seen brewed here. It is especially well known to a great many tribes in South America. It has a pleasant and refreshing taste.»[2]

271 When, during their wanderings, the Indians of the Chaco do not come across any rivers, lagoons or wells, and thus find themselves threatened by a lack of water, they collect the water that, after rain, has gathered at the base of the leaves of the caraguatá plant, where it will keep fresh for many weeks.[3]

271 [415] 482 The Choroti fetch and keep water in large, oval, sometimes spherical, earthenware vessels. When these vessels, like the one reproduced in fig. 123, are without handles, they are carried on the back by means of a caraguata net, the carrying cord of which is either placed across the forehead or across the chest. Water pitchers are, however, as a rule provided with two vertically placed handles, and also a shallow groove which runs through the latter, the whole being designed to give a hold to the carrying cord (see fig. 124). The cord is rested across the forehead

[1] Chorisia insignis.

[2] Nordenskiöld (13), pp. 89—91.

[3] Professor von den Steinen writes of the Chaco Indians of northern Chaco that they collect water from the caraguatá »in denen sich auf dem Grunde des Blätterkranzes das Regenwasser ansammelt und Monate lang verhältnismässig frisch erhält« von den Steinen (1), p. 326. See also Grubb (1), pp. 95 and 96.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

or chest of the water carrier.[1] When the pitcher has been filled with water, its mouth is closed with a stopper of grass or leaves.

The cooking pots, which consist of burnt clay (figs. 125 and 126), are also used for roasting various vegetables. Pots of this kind from the Choroti are sometimes given wart-like decorations. These are either placed in rows some distance apart from each other (fig. 125) or in rows close together (fig. 126). This manner of ornamenting clay pots is of extreme antiquity in the New World, and occurs on grave finds right up through North America.[2] The little protuberances on the pot in fig. 125 have been produced in a different way to those on the handleless pot in fig.

Fig. 125. Cooking and roasting pot of earthenware burnt black. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 150.

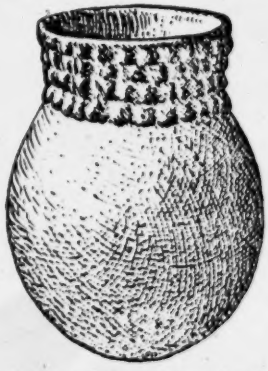

Fig. 126. Cooking and roasting pot of earthenware burnt black. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 10. 3. 54.

126. On the case of the former, they consist of small clay pellets which have been stuck on the pot before burning, whilst the protuberances on the latter probably have been pressed up out of the wet clay by the potters fingers.

All pottery is made by women. The clay is mixed with powdered potsherds, then well kneaded and formed with the hands into rolls, as thick as a finger, with which the pot is built up.[3] When this has been completed as to its shape, its surface is polished by means of a mussel shell or a

[1] Water-drawing and carrying is exclusively a work for women.

[2] See, for example, Holmes (1), pl. XI, fig. g, and Moore (2), fig. 42.

[3] Cf. figs. 217 and p. 214. On the subject of Indian pottery-making, see for example Holmes (1), and Nordenskiöld (10).

415 of a river mussel (fig. 133). These mussel shell spoons are seldom as large as the specimen here reproduced, which has a length of 14 cm.

I have seen neither food dishes nor spoons, made of wood, among the Choroti, but nowadays, at least, such are used by them.[1]

285 Among the Choroti I saw only one single piece of basket work (fig.
415 134). It consists of a small basket of the same shape as a kind of pot, which is common in the Chaco (see cooking pot in fig. 192), and it is probably only a direct copy, made in sport, of a clay pot; otherwise, basketry is unknown to the Choroti, and it is therefore probable that the object in question has either found its way to these Indians from the Chiriguano, or that some Choroti, having seen basket-weaving in a Chiriguano village at some passing visit, subsequently has attempted to produce, some similar work himself. It should be noted that the weaving technique in the basket here reproduced is the same as the one used by the Chiriguano.

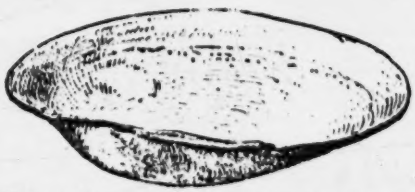

Fig. 133. Spoon, consisting of a mussel shell. Choroti. Gran Chaco, Bolivia. 1/2. Riksm. 03. 3. 167.

[17]

286 The Choroti keep no inconsiderable part of their goods and chattels
415 in large, nearly oval, knitted bags of caraguatá yarn (figs. 135 and 136). These bags are especially useful when the tribe is journeying or migrating. They are carried by the women in such a way that the tape or string within the ends of the bag is placed across the forehead, whilst the bag rests against the carrier's back. The carrying cord over the forehead keeps the bag from slipping down the back. For carrying water pitchers and other vessels of earthenware or calabash, the Choroti use carrying nets. On page 118 I have described the way in which these are used.

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[482]

Fig. 134. Basket, Choroti(?). Gran Chaco, Bolivia. 1/2. Riksm. 03. 3. 144.

For everyday use the men have a kind of

[1] Nordenskiöld (11), pp. 86–90.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

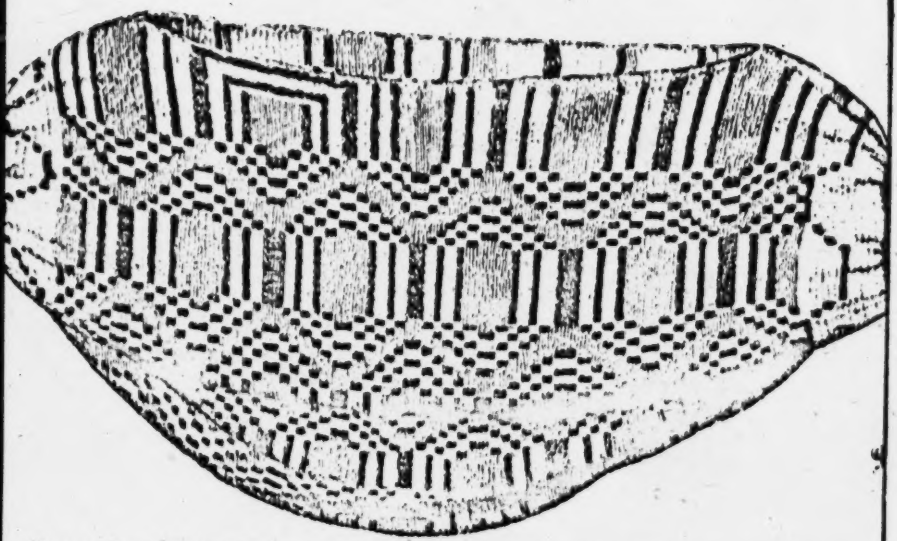

Fig. 135. Large bag, knitted of brown, black and yellowish-white (natural colour) caraguatá fibre yarn. Choroti. Gran Chaco, Bolivia. 9/5. Riksm. 03. 3. 134.

smaller caraguatá bags of the shape seen in figs. 137 and 138. These bags are carried by a string or narrow strap laid over the shoulder (see the man with a bow, fig. 96) or tied to the belt, and in them are kept a variety of articles that the Choroti men always like to have about them, such as fire-drilling sticks, tinder boxes, awls for blood-letting, colours for painting of the face, etc.

The caraguatá yarn is spun, without the aid of a spindle, only by twisting the fibres (of Bromelia serra) against the thigh with the flat of the hand. Some of the yarn is dyed with vegetable dyestuffs in order to produce variegated patterns in the knitting (see figs. 135—139). For the knitting, eyed needles of hard wood (fig. 140) are used. Similar needles of wood or bone are also used for sewing. Among the Choroti I have seen men's bags which had been knitted of woollen-yarn with long cactus spines, used as knitting needles (fig. 141). The woollen-yarn bag here reproduced is ornamented with red, brown and grey

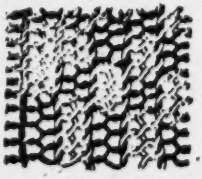

Fig. 136. Enlargement of the knitting of the bag in fig. 135.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6

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Fig. 43. Earthenware vessels from Pachacamac, Peru.
Fig. 44. Ouichua Indians.
Fig. 45. Chorotí woman.

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[p. 142]

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

XXI.

Carrying-utensils.

In the Chaco all heavy loads are carried by women. Like all South American Indians they carry heavy weights on the back and never on the head. The load is fastened by means of a band around the forehead. (Fig. 45)[1]. This is the one method of carrying known in S. America. The other is to fasten the load across the shoulders and round the chest. (Figs. 43 and 44). The pressure on the chest is generally equalized by holding with one hand the rope tied across the chest.

The Chaco tribes with whom we are here concerned bear their burdens in nets, never making use of baskets. In the accompanying table is indicated, by way of comparison, how the different tribes whom I got to know on my journeys bear their burdens.

On an examination of the literature dealing with the bearing of heavy loads by various Indian tribes we find that, in the greater part of S. America, the method is for the burden to rest upon the back, and to be fastened around the forehead. Only in the western and southernmost parts of S. America do the Indians carry heavy burdens in such wise that the burden rests on the back and is then fastened around the shoulders and chest, as e. g. among the

[1] Sometimes the bearer, in addition to the brow-bands, has also bands across the shoulders. I have never seen these, however, in the Chaco, and elsewhere only among Indians serving white men as bearers.

2: Nordenskiöld E-5 (1908-1909)1919
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Ona[2]), Quichua[3],)[4], Atsahuaca, Paez[5]),and the civilized Indians of Colombia[6]). To anyone studying the form of the cranium

	Number on map	Burden carried on the back with a band over the forehead.	Burden carried on the back and fixed on the shoulders and chest	In a poncho or the like.	Carrying-net.	Basket.	Both men and women bear burdens.	Burdens borne chiefly by women.	Children carried by means of bearing-bands.
Ashluslay	2			[1]		?			
Atsahuaca	32								
Aymara	10								
Chacobo	62								
Cháma	73								
Chané	5								
Chimane	21								
Chiriguano	4			?					
Choroti	1								
Guarayú (Guarayos)	40								
Guarayú (Pauserna)	41								
Huanyam	43								
Huarí	64								
Mataco	6								
Quichua	18								
Tambopata-Guarayo	6X				—			?	
Taplete	3								
Toba	7								
Vamiaca	63					?		?	
Yuracáre	22			—					

of the various Indian tribes, it will probably be of some interest to learn that there are in S. America two methods of carrying burdens so unlike each other, and having such dissimilar geographical extension.

The carrying-net (Map 25) is found in the western and southern parts of S. America. From all appearances it belongs to an older period of civilization than the carrying-basket,

[1]) In holders made of bark.
[2]) GALLARDO, p. 285.
[3]) WHYMPER, p. 109.
[4]) FERRIS, numerous illustrations.
[5]) PITTIER DE FÁBREGA, Pl. 4.
[6]) REGEL, Pl. 24, fig. 21.

2: Nordenskiöld E-5 (1908-1909)1919
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000 since it is used by most of the Gês-tribes who live in tracts where there is abundance of material for basket-making. The supposition that the use of carrying-nets among these tribes is due to the difficulty of finding suitable wicker is thus precluded.

The carrying-net is in use among the following tribes as well as those indicated in the table on p. 144: (45) Botokuds[1]), (27) Ona[2]), (67) Suya[3]), (28) Bakaïrí[4]), (28) Mehinakú[4]), and (28) Auetö[4]), (11) Chamacoco[4]), (8) Lengua[5]), (12) Mbayá[6]), (36), Ijca[7]), (10) Araucanians[8]), and (0,3) Taputya[9]). The (E) Diaguita[10]) seem formerly to have made use of carrying-nets; UHLE[11]) found carrying-nets in the very old excavations at (B) Arica.

In all probability various nets found on the coast of (A) Peru are also carrying-nets. In the Linden Museum at Stuttgart there are nets of this kind from Valle de Chancay. One of these, made of fine string, is 125 centimetres long and 30 centimetres broad (when stretched)[12]).

A C 482 [415] The waterpots are borne by the Choroti, Ashluslay, Mataco, Toba[13]), Tapiete, Lengua[14]), and Mbayá[15]) in the Chaco in a very characteristic manner (Fig. 45). Around the pitcher, which is indented at the middle and has two ears, there runs a cord. This is fixed by the woman who carries the pitcher

[1]) v. IHERING (2), Pl. 4, Fig. 7. WIED, Vol. I, Pl. 14.
[2]) GALLARDO, p. 285 Very simple form.
[3]) v. D. STEINEN (1), p. 194.
[4]) RADIN, p. 928.
[5]) GRUBB, p. 93.
[6]) SÁNCHEZ LABRADOR Vol. I, p. 271.
[7]) G. M. BOLINDER.
[8]) MASON, p. 535.
[9]) FRESCAROLO, p. 114.
[10]) AMBROSETTI (2), p. 449; QUIROGA, fig. 7.
[11]) (7), p. 30.
[12]) According to letter received from KOCH-GRÜNBERG.
[13]) Also the Toba on the lower Rio Pilcomayo. DUCCI, p. 8.
[14]) GRUBB, Fig. p. 99.
[15]) SÁNCHEZ LABRADOR, Vol. I, p. 291.

2: Nordenskiöld E-5 (1908-1909) 1919
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around the forehead in the same manner as when other heavy burdens are carried. While being carried the pitcher hangs on the back. No other Indians in S. America, except the Quichua (Fig. 44)[1]) and possibly the Aymara, carry their pitchers in this manner on a cord passing through the two ears of the vessel. It reminds one not a little of the method prevailing among the Incas of carrying the «Aryballes» (see Fig. 43) so characteristic of the Inca period, and it ap-

Fig. 46. Clay doll. Indian woman with bearingband. Chorotí. R. M. (D. 346) 2/3. A — tattooing.

pears to me by no means improbable that the water-pitcher now used in the Chaco is a development of the aforementioned Incan type on which was also carried a rope. It is evident that the idea of carrying earthenware vessels on a rope, as well as the ears of the vessels (see page 212) is derived from the Western area of civilization. «Aryballes» are found in North Chile, in N. W. Argentine, on the Bolivian tableland, in the mountains and on the coast of Peru, and in the mountains and on the south coast of Ecuador. This type of vessel is considered by BOMAN and UHLE, no doubt

[1]) WIENER, p. 128.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

correctly, to be Incan, and may, indeed, be looked upon as a «clue-fossil» showing the extension of the Incan civilization[1].

The women carry their children sitting on the hips or, sometimes, on a bearing-band. (Fig. 46). Such bearing-bands are found mostly in the eastern and northern parts of S. America. (Map 26).

I have seen them not only among the (1) Choroti but also among the (6) Mataco, (41) Guarayú (Pauserna), (40) Guarayú (Guarayos), (43) Huanyam, (24) Chimane, (32) Atsahuaca, (6 X) Tambopata-Guarayo, (3) Tapiete and (22) Yuracáre. They are not found among the Aymara, Quichua, Chiriguano, Chané and Chámа. Nor have I found bearing-bands in use among the Ashluslay and the Toba.

In the literature dealing with this subject such bearing-bands are mentioned as being in use among the following tribes: (45) Botokuds[2]), (07) Purí[3]), (15) Kayapó[4]), (38) Tupinambá[5]), (21) Coroados (Caingúa)[6]), (4 C) Guajajara[7]), (4 X) Gês-tribes, Maranhão[8]), (4 X) Tajé[9]), (20), Paressi-Kabiši[10]), (31) Chipaya and Curuahé[11]), (34) Jivaro[12]), (42) Caripuna[13]), (59) Crichana[14]), (46) Conibo[15]), (48), Kobéua[16]), (31) Ojana[17]),

[1]) See UHLE (2), p. 17; ROMAN, p. 203 and JIJÓN Y CAAMAÑO, p. 151.
[2]) v. IHERING (2). Pl. 5, fig. 8.
[3]) WIED, Vol. I, p. 136.
[4]) KRAUSE, p. 393 and 394, Pl. 25.
[5]) STADEN. Vol. 2, (p. 18.); PISO ET MARCGRAV, p. 274.
[6]) KOENIGSWALD, fig. 33, p. 31.
[7]) PLAGGE, p. 206.
[8]) RIBEIRO, p. 188.
[9]) NIMUENDAJÚ-UNKEL (2), p. 620.
[10]) MAX SCHMIDT (4), fig. 30.
[11]) SNETHLAGE, Pl. II.
[12]) FESTA, Pl. foll. p. 194.
[13]) KELLER-LEUZINGER, p. 105.
[14]) BARBOSA RODRIGUES, p. 165.
[15]) SALA, fig. p. 78.
[16]) KOCH-GRÜNBERG, (2) Vol. 3, p. 147.
[17]) GORJE (1), Pl. 7, fig. 19.

361 166 gards the Choroti, he, on Karsten's authority, mentions the interesting fact that these Indians sometimes are compelled to make a change of dwelling-site only on account of the appearance of excessive swarms of noxious insects (principally locusts).[1]

484 464 It is only in later times that the Choroti to any greater extent have come in to work on white men's sugar plantations. These plantations are mostly situated in Argentine territory, and therefore the Indians often have to make journeys of several weeks, in going to, or returning from, their place of work. Such Indians as go to the plantations only work for a few months for the whites, and then return to their own locations, there to spend the rest of the year in the wilds of the Chaco. Whilst at the plantations, they live in Indian villages they build for themselves, and in many ways carry on their primitive life.

166 I will also mention two other reasons for migration; now, however, only seldom obtaining among the Choroti, viz., fear of other Indian tribes and of reprisals for misdeeds committed against the whites. Concerning the latter cause for migration, I have already mentioned that a part of the Choroti tribe disappeared into the interior of the Chaco, after having in some way transgressed against white people who had settled in their country.

439 The Choroti Indians also engage in trading, and their chief article of barter is dried fish. In the Pilcomayo they are able to catch more fish than are required for their own consumption, and they therefore dry the surplus and take it to other parts, inhabited by Chiriguano and Chané, where fish is less plentiful. These latter Indians buy the fish by giving in exchange maize, red colouring-stuff (for face-painting) and other articles. Nowadays the Choroti also obtain iron, clothing, and other wares, by trading with the whites at the sugar plantations.

The snail-shell spangles that have been described in the foregoing are an important article of trade in the Chaco. The Choroti, according to their own stating, obtain spangles — separate, as well as strung into ready-made necklaces — from tribes living in the eastern Chaco. On Rio Parapiti Nordenskiöld has seen spangles of this kind among the Tapiete Indians, who told him they had got them by barter from the Ashluslay, and the latter that they, in their turn, had obtained them

[1] Nimuendajú (I), p. 35.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

X.

Domestic Animals and Objects connected with them.

A C 231 The Choroti and the Ashluslay keep dogs, horses, cows, sheep, goats, fowls and cats. Of these the *dog* is the only native domestic animal. The dog is very widely distributed in America. In many cases it is difficult to decide to what extent he has spread beyond his original domain in post-Columbian times. I do not know whether the Chaco dog has been crossed with dogs of European breeds, but in any case he has a very characteristic appearance, and is worth studying by a specialist.

We know that the Indians of the Argentine pampas and of the Chaco Austral became real equestrians soon after the Discovery of America. Their whole life was changed and adopted to the horse.

A C [481 492] The Ashluslay and some of the Choroti also have horses, and *breed horses*. But they are not equestrians, and usually go on foot. Owing to the introduction of horses, they have adopted this and the other accessory to a horseman's equipment, among other things, curious *spurs* of forked wood. (Fig. 11).

The Ashluslay Indians have numerous cows and sheep, and a smaller number of goats. Among the Choroti we find sheep and goats, and few cows. When the cows are killed, their flesh is used; but this may be said to happen rarely.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

had their dwellings far from any fishing water, I myself never saw these Indians engaging in fishing. As they had, however, brought with them their fishing gear (except the frameworks of their landing-nets), I succeeded in making a good collection of this kind of implement. 226

The Choroti fish with nets (using them as landing-nets), fish-hooks, and with bow and arrow. The last-mentioned fishing method, which, as far as I know, has only been observed by Moberg a Swede, is, however, only used during the latter part of the rainy season.[1]

The nets are either fastened so as to fill up the angle between two rigid poles, which are tied together by their lower ends (fig. 113), or between two supple rods, tied together at both ends (fig 114). The angle-set poles, and the rods, seem as a rule to be about 3 m in length. These fork poles and rods (dip-net frames) the Choroti had not troubled to bring with them to their dwelling site — far removed from any fishing water — in the neighbourhood of Tatarenda, and therefore my description of these implements is founded on two specimens preserved in the Gothenburg Museum, and on such photographs[2] and information as Nordenskiöld has kindly given me.[3]

When fishing, the Indians often split up into two parties, one of whom make a bar across the river with the nets that are stretched between poles (the barring-nets), which are then held so that the points of the fork rest on the bottom of the river. The other party of fishermen drives the fish towards the barring-nets, at the same time using their nets that are fixed between two rods (dip-nets) for catching fish.[4] These latter nets are used like large landing-nets, and, by means of the flexible rods, can be opened and closed. The Choroti have no water craft of any kind (not even rafts), but do their fishing swimming or wading. When fish is scarce, the Choroti block up the Pilcomayo with pole-built fences that, here and there, have openings in them. In front of these, the Indians sit on small platforms (figs. 114 and 115), and fish with dip-nets. When the weather is cold, or when fish is to be fried, fire is made on the platforms, which are isolated from the fire by means of a layer of river mud.[5] These [501 481] 343 226

[1] Nordenskiöld (11), pp. 60.
[2] Nordenskiöld (18), fig. 8, 11 8, plate 14', and Karsten (3), the figure on p. 34.
[3] Letter dated 14. 7. 1931, Rockefeller collection of manuscripts, volume 1931, letter N.
[4] Nordenskiöld (18), p. 43.
[5] Nordenskiöld (18), p. 44.

352 [513] wooden sticks for fire-drilling, toilet articles, magic rattles etc. Contrary to the Chiriguano, the Choroti do not use bedsteads or hammocks, but sleep on the ground, with only an animal skin, or a woollen mantle between themselves and the ground.

[142 291]

Fig. 19. A man, with his daughters. Choroti. From the dry soil forest region between Caiza and Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

343 251 At the cooking-fires in front of the huts, the Choroti now and then erect square sheds, with flat, grass-covered roofs. These sheds are constructed like food-storing racks (fig. 28), and are used both as a protection from the sun and as sleeping places during hot nights According to Nordenskiöld, the Indians on the Pilcomayo use the roofs of these sheds for drying fish on.[1] I am of opinion that these sheds, originally, were only designed for the storing, drying, smoking or roasting of fish, and that, therefore, their use as shade-givers or sleeping-shelters is only

[1] Nordenskiöld (13), p. 36.

[text continues on p. 47]

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
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IV.

The Bed.

The Choroti and the Ashluslay have no hammocks or plank beds (c a t r e). They sleep on the ground, on skins, or simply on the cloak they use as a garment. Hammocks are used by the neighbouring Chané and Chiriguano, as well as by the Guaná in the Chaco Boreal.[1]) But these are not practical for the Chaco Indians here dealt with, as they cannot sling them in their small, narrow huts[2]). Besides, it is too cold during part of the year in the Chaco to sleep in hammocks, for which reason the Chané and the Chiriguano seldom use them as beds, but chiefly for resting in during the daytime. That hammocks are not used in the hills, is probably also due to the climate, and not to unacquaintedness with these comfortable couches. The Ashluslay occasionally have mats of rushes, on which they sit or lie. I do not know where they derive from. I have not seen mats of exactly the same kind except among the Chané. SÁNCHEZ LABRADOR mentions them as used by the Chaná[3]) and Mbayá (=Kadiuéo)[4]) and MAX SCHMIDT by the

[1]) COMINGES, p. 236.

[2]) For the same reason the Chama, too, have no hammocks. Among the Mataco-Vejos I saw a hammock which was used as a bed for young dogs to protect them from sand-fleas. The Tapiete have no hammocks but I saw a toy hammock among them (R. M. I., 32) These two tribes are therefore acquainted with hammocks, though the necessity for the manufacture of them does not exist.

[3]) Vol. 2, p. 276.

[4]) Vol. 1. p. 248.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

Women.

000 Mitua[1]), Guahibo[2]), Yururo[3]), Aguaruna[4]).

A C [291] The poncho is used by the Chiriguano, Chané, Quichua, Aymara, and rarely by the Choroti, Toba, Mataco, Tapiete and Ashluslay. From books I have noted the poncho for the following tribes: Ijca[5]), Inca[6]), Patagonians[7]), Goajiro[8]) Pegueche[9]), Araucanians[10]), Coroado or Gaingang[11]), Rio Rio Grande do Sul, Guaná[12]), Gran Chaco and Colorados[13]) Ecuador (very small). UHLE[14]) depicts ponchos of Indians or mestizos at Pasto in Columbia and Quito in Ecuador. DEBENEDETTI[15]) found a poncho in a grave at San Juan. BOMAN[16]) mentions ponchos from graves in Puna de Jujuy and Puna de Atacama.

It plainly follows from the distribution of the shirt and of the poncho that these cultural elements derive from the mountain culture of the Andes. It is remarkable that their distribution has not extended. The long, trying work required for weaving a shirt has, of course, been a hindrance to its spread. That shirt and the poncho have not driven the woollen cloaks from the Chaco is probably due to their serving at the same time as excellent rugs, and that it is espe-

A C [291 ●513]

[1]) CRIVELLI, p. 178.
[2]) Ibid. p. 550.
[3]) Ibid. p. 500.
[4]) QUINTANILLA, p. 78.
[5]) BOLINDER (4), p. 61.
[6]) Coño, Vol. 4, p. 160.
[7]) FALKNER, p. 112.
[8]) PLEYTE, p. 240.
[9]) LUIS DE LA CRUZ, p. 33.
[10]) LATCHAM (1), p. 330.
[11]) TESCHAUER, p. 21.
[12]) COMINGES, p. 305.
[13]) RIVET (3), p. 186.
[14]) (1) Vol. 2, Pl. 13.
[15]) (4) p. 70.
[16]) BOMAN, p. 503 and p. 733.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

A
C
291
513

cially at night that the Indians there must protect themselves against cold.

The real garb of the Indian woman among the Choroti, Mataco and Ashluslay consists, apart from the fur cloak mentioned above, of a *loin cloth*. It may be, as it often is among the Ashluslay, sewn together of several deer skins stripped of the hair, or it may consist of a piece of woollen cloth, as among the Choroti and Mataco. Occasionally the Ashluslay girls may be seen wearing a short skirt woven in one piece, a short «tipoy» (fig. 27).

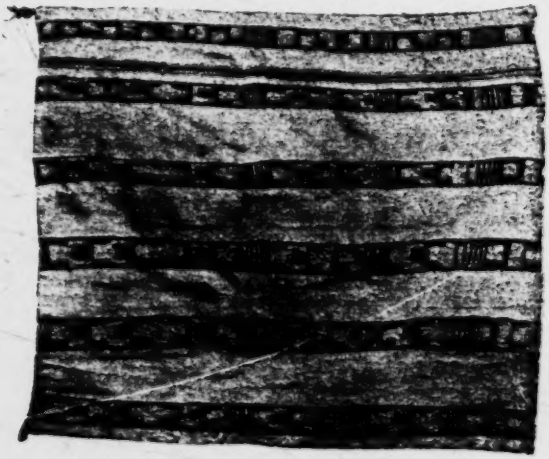

Fig. 27. Woman's garb of wool. «Tipoy». Ashluslay. G. M. (A. 173) 1/8.

The oldest of these is undoubtedly the fur garment. We find it, moreover, among the Lengua[1]). The garment of home woven woollen fabric was probably introduced, like the woven cloak, under the influence of the mountain culture.

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We do not find the like among the tribes I visited in N.E. Bolivia and its environs.

[1]) GRUBB, p. 69.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

These casings are not sewn together, but consist of the seamless skin of the tail or leg of some animal. At first I took it as a matter of course that these casings had been put on solely for the purpose of strengthening the bow at some point where it looked like breaking. In order to make certain, I cut loose a casing of this kind, which was on the bow numbered 03. 3. 253, but I could not discover the least crack, knot, or other defect pointing to any necessity for reinforcing the bow at that point. But, between the casing and the stave, I did find some flattened cakes of excrement from some herbivorous animal. Whether these excrements had *purposely* been placed inside the casing, is of course impossible to say, but if they were put there on purpose, then they undoubtedly possessed some magical significance. In such case the idea must have been that they would bring good luck in the hunting of the species of game whose excrement had been placed inside the casing (see p. 181). As among the Indians there is a very wide-spread notion that whoever possesses the skin of some animal also possesses a certain mastery over the spirit of that animal,[1] it is not impossible that the skin casing itself is of a magic character. Professor Emil Holmgren, who, at my request, kindly carried out a microscopical examination of the excrement flakes as well as of the piece of skin, considers that the character of the latter points to its having been a part of the tail of an animal of the goat, sheep, or *cat* tribe, and that the colour and grouping of the hairs are indicative of the *last-mentioned* category.[2] That parts of animals' bodies are used by the Chaco Indians as hunting amulets, is, among other things, evident from a statement by Nordenskiöld upon the subject of hunting among the Ashluslay, who are neighbours of the Choroti: »In hunting, the Ashluslay make use of various amulets. If, in the always indispensable caraguatá bag, one carries the head of a tortoise, then one is able to stalk close up to the deer, without putting them to flight. When hunting ostriches, it is a good thing to bring along pieces of skin taken from the breast of ostriches which one has killed.«[3] As to the other two bows, I have refrained from cutting off the skin casings, and therefore cannot say whether the latter conceal any cracks or not. On the staves of the bows Nos. 03. 3. 252 there are, however, to be seen, close to the casing, several deep scorings, running

[1] Karsten (4), p. 90.
[2] Opinion dated August 24th, 1921. Rockefeller collection of Manuscripts, Volume 1921, »H».
[3] Nordenskiöld (13), p. 49.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

302 bamboo holder, 10 to 15 cm long, and 1 to 2 cm in diameter. The bottom of this cylinder consists of a joint in the bamboo, and for its mouth there is a stopper of wool, grass, bast or bees-wax.

[291] In painting the face, the paint is put on with small stamps, which either consist of the jaw-bone of a siluroid (figs. 81, 88 b) or of a piece of carved wood (fig. 82). Flat wooden stamps with diamond pattern are also used.[1] Those interesting stamps that are made from jaw-bones of fishes, are undoubtedly the prototype of the wooden stamps.

[531]

Fig. 81. Jaw-bone of a siluroid. The row of teeth is used as a stamp for putting on the paint in face-painting. The fore-end of the bone is sharpened to a point, so that this object can also be used in tattooing and blood-letting. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 100.

Fig. 82. Paint stamp made of a cane splinter. Is used in the same way as the fish jaw in fig. 81. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 94.

[304]

[303 515]

For cutting off the hair to the desired length (figs. 16—24, 30, 39, 53 and 83), the Choroti use the jaw of the palometa fish, which is set with exceedingly sharp teeth (fig. 84).[2] These are also used as louse-combs, although the Choroti as a rule carry on their louse-hunting only by the means that nature has provided them with. It is possible that once upon a time palometa jaws formed the only combs that the Choroti possessed, but that they afterwards went out of fashion when the more practical wooden or split-cane combs came into use. Of the latter, we may take it that the split-cane combs are the

Fig. 83. A man with hair hanging loose. Choroti. Gran Chaco Bolivia. Photo. E. v. R.

Fig. 84. Jaw of palometa fish (Serrosalmo sp.), used for hair-cutting. Also said to be a louse-comb. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 10. 3. 29.

[1] Nordenskiöld (11), fig. 42.
[2] Nordenskiöld (13), p. 100.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Apart from split-cane combs, the Choroti also have wooden combs, 302
carved in one piece (figs. 86 and 87). It is probable that formerly the Choroti did not themselves make as well-made combs as the one reproduced in fig. 87, as, until quite lately, the Chaco peoples have been without good cutting implements of stone or metal. Among the considerably higher cultured Chiriguano, who, for a certainty, have long possessed metal tools, carefully worked wooden combs are very common. It is therefore possible that the neat-looking comb shown in fig. 87 was made among the Chiriguano, although it may subsequently have reached [439]
the Choroti through barter. As I have previously pointed out, there are certain toilet articles, viz., colour seeds and ready-prepared red paint, of which the Chiriguano dispose to the Indians of the Chaco. The Choroti keep their toilet articles, not only in bowls and boxes of calabash, but also in miniature bags of caraguatá (fig. 88).

On account of the dearth of water that periodically recurs on the 515
Chaco, the mere nature of their country makes it impossible for many of the Choroti to observe the same bodily cleanliness as the Chiriguano. But even if the Choroti were well off as regards water supply, I do not believe that they would to any appreciably greater extent indulge in any bathing or washing *intended for the better care of the body*. For, it must be said, the Choroti do not possess anything like the Chiriguano's sense of cleanliness.

Nordenskiöld, who has had opportunities of studying the Choroti Indians on the Pilcomayo, where of course they had plenty of water, writes as regards their lack of cleanliness, inter alia, as follows: »Never did I see an Ashluslay washing his clothes, nor any Choroti, unless they had learnt it from the whites. And to bathe, just for the sake of bathing, is a thing these Indians would only do, I should think, when the weather is really hot. Fishing, however, of necessity takes the men a great deal into the water. The children often play about in the water, too, which makes for keeping them clean. And the 'wee-wee ones' get washed by their mothers when the latter go down to the river.»[1]

»Caring for the body», among the Choroti, is mainly limited to de- 515
corating the face by painting, combing the hair, picking out lice, and 302
pulling out all hairs on the face and about the private parts. Painting,

[1] Nordenskiöld (18), p. 78.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

515 Painting,
302 pulling out of hairs, and, in certain cases, the cutting of the hair, are,
[782] however, probably to a great extent to be looked upon as acts of magic import.[1]

515 A toilet business that cannot very well be said to be due to any supernatural conception, is, however, lice-picking. Practically all Choroti are infested with lice. When these are getting too troublesome, somebody is called in for assistance (see fig. 89). This is a service willingly rendered by the Choroti, for it is a kind of hunting that they visibly enjoy. To an onlooker it would seem as if the louse hunters also greatly valued
[262] the quarry, for as soon as a louse has been caught, it is eaten by the hunter. But nevertheless I think it a mistaken idea that phthiriophagi find the lice nice-flavoured, for head lice are surely too small to have any particular taste, good or bad. Lice-eating probably has probably originated from a desire to render harmless, in the simplest way, such lice as have been caught. These little animals take a good deal of killing, if done with the fingers only, and there is not always a camp fire handy, into which to throw them; for less squeamish individuals, the eating of the catch undeniably proved the most practical way. I think it very probable that lice-eating also among monkeys has its explanation in a wholly conscious effort at annihilating noxious parasites.

[1] Karsten (4), Chap. 1, 2 and 6.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 82. Woman taking lice from her husband's head. Choroti on their wandering towards the Pilcomayo. Dry soil forest region between Caiza and Fort Crevaux, Gran Chaco, Bolivia. Photo. E. v. K.

[p.84 is blank]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

114 of the chaguar (chahuar).[1] This statement, which is erroneous, is due to
262 the similarity of sound existing between chaguar[2] and chañar.[3] The *fruits* of the latter are eaten by the Indians, whilst of the former only the rootstock is edible.

251 By drying, the Choroti preserve vegetables against seasons of shortened food supply.

263 Personally I have not seen the Choroti use salt, but, nevertheless, they possess this condiment. Possibly they, like the Lengua, extract salt from the ash of a plant growing on the Chaco.[4] Salt-making from vegetable ash is known to many primitive peoples.[5]

264 Among the Choroti I never saw men and women eating together.

[462] The preparing of food is, as a rule, the work of the women. The
515 Choroti are not dainty about their food, and the uncleanliness which is
252 a distinguishing trait in culinary matters among these Indians surpasses almost anything I have ever observed among other primitive peoples, with the exception of the Mataco Indians. Of the latter, however, my experience is limited to only a few families, and it may be unfair to judge the whole tribes from those.

271 Water, often muddy, ordinarily forms the drink of the Choroti. When in the dry season the Indians are on the move, or from some reason or other find themselves far away from any river, they sometimes suffer very badly from lack of water.

273 In the season for harvesting wild fruits, such as algaroba, tusca, and chañar, an intoxicating fruit beer is brewed. During the time of year that I visited the Choroti, there were no fruits of which any intoxicating beverage could be brewed; consequently I never had an opportunity of observing either the brewing of beer, or any drinking carousal. This led me to suppose that the art of brewing fermented liquor was unknown to the Choroti. Nowadays the Choroti have learnt from the Chiriguano also how to brew maize beer. Of the Choroti method of beer-brewing, Nordenskiöld has given the following description:

»When tusca beer is to be made, the fruit is first of all ground, and they water added, the whole being thereupon left in a dirty animal hide,

[1] von Rosen (3), p. 9.
[2] Bromelia serra.
[3] Gourliea decorticans.
[4] Hawtrey (1), p. 287.
[5] For one method of producing salt from plants, see von Rosen (4), p. 340.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK 6

800

A Choroti settlement in the neighbourhood of Fort Guachalla. Angry dogs are the first to welcome the visitor.

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The old Choroti chief Atamo and his relations.
The scene to the right illustrates the Indian custom of louse eating.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Fig. 25. Huts. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[516 415]

Fig. 26. Hut frames made of tree branches. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[p. 46 is Hawk]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

the same colour on either side. Beside these six groups of stripes, there is a thin, greyish white stripe running along each of the longer edges of the mantle. The garment is woven in one piece. In the centre of the

Fig. 32. Choroti Indians. Gran Chaco. Bolivia. Photo. E. v. R.

mantle there are figures sewn with reddish brown, woollen-yarn (fig. 34), probably property marks.[1]

When engaged in work or pastimes, the Choroti men usually take off their mantles. In »our» Choroti village we therefore always saw a large proportion of the men going about practically naked (figs. 16, 18 and 171).

[1] Cf. Nordenskiöld (13), p. 32.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 80. Woman taking lice from her husband's head. Choroti on their wandering towards the Pilcomayo. Dry soil forest region between Caiza and Fort Crevaux, Gran Chaco, Bolivia. Photo. E. v. K.

[p.84 is blank]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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401
291

Fig. 151. A Choroti man producing fire by drilling. Gran Chaco, Bolivia. Photo. E. v. R.

[p. 130 is blank]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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415
142
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301

Fig. 152. A Choroti girl who has put decayed tree stumps on top of the fire in order to preserve it until again needed. Choroti. Gran Chaco. Bolivia. Photo. E. v. K.

[p. 134 is blank]

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1: Rosen E-5 (1901-1902) 1924 SK6 Chorotí SK6

(151)

Fig 171. Men who are engaged in playing a gambling game called »chuke». The scoring is done by means of arrows stuck into small holes in the ground, usually arranged in the way seen in fig. 173. On account of the shadow thrown by the arrow nearest the foreground, the holes next to this arrow, although strongly sunlit, can be seen. The third arrow from the foreground is planted in the »river» (see page 173). From this picture, as from the diagram, fig. 173, will be seen that the row of holes at times may be laid out so as to form a curve or an obtuse angle.
Chorotí. Gran Chaco Bolivia. Photo. E. v. R.

[p. 152 is blank]

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

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Choroti Indians outside their house.

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789
342
291

The open space in the middle of the Choroti village, with a drum placed to the left.

The woman in the middle has a leather strap tied round the chest as a sort of charm against evil spirits.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

300

A Choroti settlement in the neighbourhood of Fort Guachalla. Angry dogs are the first to welcome the visitor.

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622
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291

The old Choroti chief Atamo and his relations.
The scene to the right illustrates the Indian custom of louse-eating.

276 the smoke of tobacco oil. Wooden pipes are often decorated with burnt-in
[531] ornament (figs. 155—157 and 159—161), or, once in a while, with carved ornamentation (fig. 161), or mountings of tin.

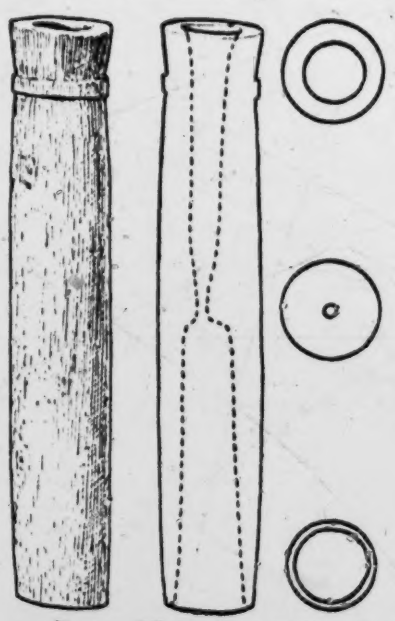

Fig. 154. Yellow wood. 03. 3. 219.

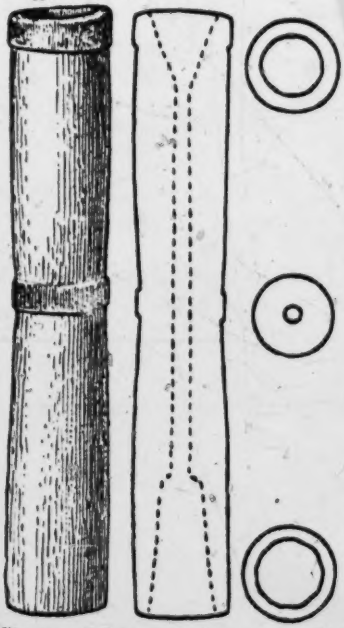

Fig. 155. Yellow wood; the rings carved in relief are coloured dark by burning. 03. 3. 224.

Tobacco pipes of wood. Choroti. Gran Chaco. Bolivia. 1/3. Riksm.

The straight type of pipe much resembles our modern cigar holders, but is nevertheless an ancient American cultural element. Straight tobacco pipes are found in widely separated parts of the New World, and in archæological excavations in North America, pipes of this kind have been found of burnt clay, among other materials, which probably are pre-Columbian.[1]

276 The Choroti Indians never smoke whilst working, or otherwise moving
517 about, but keep this form of indulgence for their sociable talks, their meetings, or drinking bouts. No Choroti, when in company with others,

[1] E. g. Holmes (1), pl. CLVI. For the distribution of the straight tobacco pipe in North and South America, see, for example, McGuire (1), and Nordenskiöld (21).

[text continues on p. 140]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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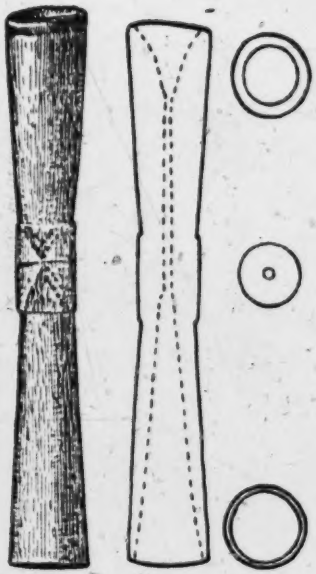

Fig. 156. Reddish-brown wood. Ornament burned in. 10. 3. 143.

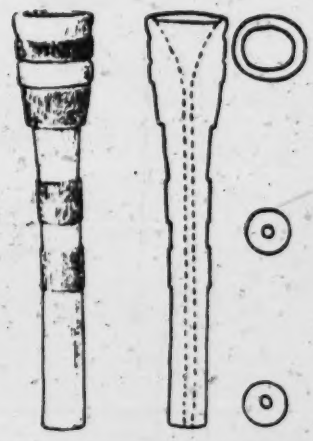

Fig. 157. Yellow wood. Four hands carved in relief, burned dark brown. 03. 3. 226.

Fig. 158. Yellow wood. 03. 3. 229.

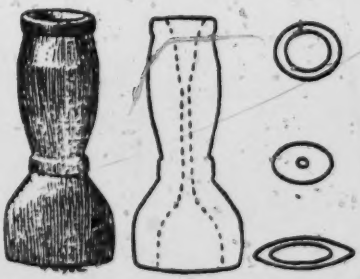

Fig. 159. Reddish-brown wood; the relief carved rings are darkened, by burning. 03. 3. 230.

Wooden tobacco pipes, Choroti, Gran Chaco, Bolivia. 1/3. Riksm.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

276 smokes his pipe alone, but lets it pass, by turns, from mouth to
517 mouth. Similarly to other primitive peoples, the Choroti not only take the smoke into their mouths, but also inhale it into their lungs, a method of smoking which apparently gives them great satisfaction.

534 The Choroti are only indifferently gifted for music, and their musical instruments are exceedingly primitive. These consist of flutes and whistles of bone, whistles made from skulls, disc-shaped whistles made of

[276
531]

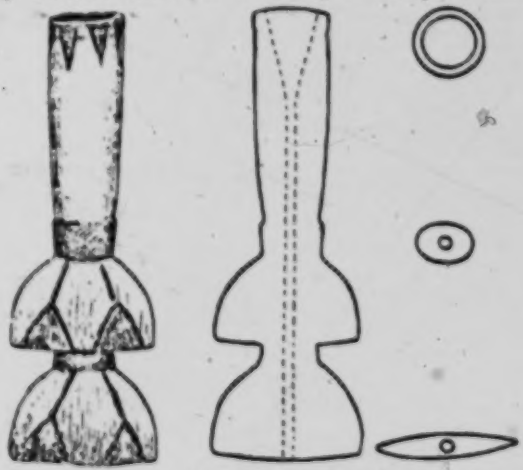

Fig. 160. Yellow wood. Ornament burned in. Riksm. 03. 3. 231.

Fig. 161. Yellow wood. The ornament on the mouthpiece and a ring round the mouth of the bowl are burned in. The mark resembling an inverted letter A is carved. The lower ring on the bowl, and the lines that are obliquely issuing from it, are carved and painted red. 03. 3. 232.

Tobacco pipes of wood. Choroti. Gran Chaco. Bolivia. 1/2. Riksm.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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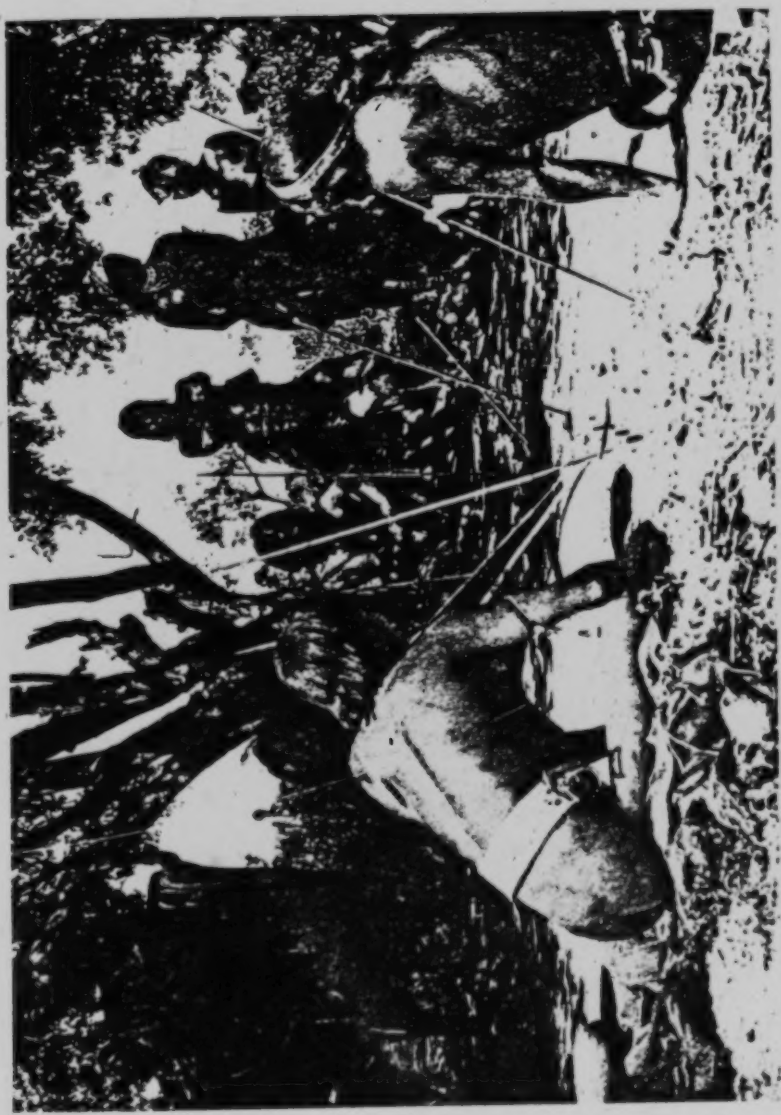

Fig 171. Men who are engaged in playing a gambling game called chukes. The scoring is done by means of arrows stuck into small holes in the ground, usually arranged in the way seen in fig. 173. On account of the shadow thrown by the arrow nearest the foreground, the holes next to this arrow, although strongly sunlit, can be seen. The third arrow from the foreground is planted in the arrows (see page 173). From this picture, as from the diagram, fig. 173, will be seen that the row of holes at times may be laid out so as to form a curve or an obtuse angle.
Chorotis. Gran Chaco Bolivia. Photo. E. v. R.

[p. 152 is blank]

1: Rosen E-5 (1901-1902) 1924 . SK6 Choroti SK6
Toba SI 12

C 526

»pea-shooters» of reed.[1] With the latter they fire off hard kernels, clay pellets, etc. Very small children are given small rattles made of woody fruit shells with dry kernels inside, which make a rattling noise when shaken. Girls are very fond of playing with dolls. These are modelled in clay by some female relative, usually the girl's mother, and are usually fashioned in the shape seen in fig. 176. This doll, which represents a woman with strongly developed breasts, is, however, not from the Choroti but from the Toba, a tribe with whom I also came in contact during our journey. It would appear as if the Choroti mothers in making these dolls attach the greatest importance to reproducing the breasts as true to nature as possible, and often they also try to copy the tattoo marks on the face. The Choroti dolls, however, often being made either without, or with very small, heads, the tattooing is mostly marked on the breast of the figure.[2]

C 524 857

C [526]

T [524 532]

Fig. 174. »Hockey» stick, consisting of the leaf-stalk of a palm. Choroti. Gran Chaco. Bolivia. 1/9. Riksm. 03. 3. 203.

Not only Choroti children, but also grown-ups occasionally while away time by string tricks more or less resembling those which children of our own country sometimes amuse themselves with.[3]

I have had frequent opportunities of seeing Choroti children at play, and have found their games and sports in many ways similar to those of our own children. Indian children play »tag», play being at war, at hunting and fishing, and also imitate other occupations and doings of their elders.

Fig. 175. Hand ball, of maize leaves. Choroti. Gran Chaco. Bolivia. 1/9. Riksm. 03. 3. 199.

Fig. 176. Child's doll, made of clay. Toba. Gran Chaco. 1/1. Riksm. 03. 3. 805.

[1] Nordenskiöld (13), fig. 33.
[2] Cf. Nordenskiöld (20), figs. 4—18.
[3] Nordenskiöld (13), fig. 35.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

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A
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411]
524
A
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000

arms are made. I have not seen similar slings among any other tribe.

The *Bolas*, too, is only found among the Choroti and the Ashluslay as a toy or as a boy's weapon. There are no stones to make the balls, so these are made of wood.[1]) FRIEDERICI[2]) has indicated the distribution of the bolas. He mentions the Aymara, Quichua, Mojo, Mataco, Abipone[3]) and other Chaco Indians, the Araucanians and other allied tribes, the Indians of the Argentine pampas, the Patagonians and some of the Fuegians[4]). To this list may be added the Querandi[5]) at the mouth of the R. La Plata.

Fig. 7. Ashluslay Sling. R. M. (A. 1555).

Stones similar to those used for the bolas have been found in an extensive region in the west and south of S. America. A good deal that has been written about these stones is passed over by FRIEDERICI in the treatise just referred to; v. IHERING[6]) has written about these stones in S. Brazil. RIVET[7]) who offers us a very complete résumé concerning their distribution, is of the opinion that they were used in different places for different purposes. It must therefore not be assumed that wherever bolas-like stones have been found, the bolas was in use. EDER[8]) mentions the

[1]) See »Indianerleben» fig. 24.
[2]) (1) p. 34.
[3]) Also as a toy. FRIEDERICI (1), p. 34.
[4]) See also COLAZZI, p. 124.
[5]) SCHMIDEL, p. 150.
[6]) (1), p. 73.
[7]) (4) p. 177.
[8]) p. 209.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

around the forehead in the same manner as when other heavy burdens are carried. While being carried the pitcher hangs on the back. No other Indians in S. America, except the Quichua (Fig. 44)[1]) and possibly the Aymara, carry their pitchers in this manner on a cord passing through the two ears of the vessel. It reminds one not a little of the method prevailing among the Incas of carrying the «Aryballes» (see Fig. 43) so characteristic of the Inca period, and it ap-

Fig. 46. Clay doll. Indian woman with bearingband. Choroti. R. M. (D. 346) 2/3. A = tattooing.

pears to me by no means improbable that the water-pitcher now used in the Chaco is a development of the aforementioned Incan type on which was also carried a rope. It is evident that the idea of carrying earthenware vessels on a rope, as well as the ears of the vessels (see page 212) is derived from the Western area of civilization. «Aryballes» are found in North Chile, in N. W. Argentine, on the Bolivian tableland, in the mountains and on the coast of Peru, and in the mountains and on the south coast of Ecuador. This type of vessel is considered by BOMAN and UHLE, no doubt

[1]) WIENER, p. 128.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

XXIII.

Games and Playthings.

Two kinds of games can be distinguished among the Chaco Indians, viz. games of chance and games of skill. The area of occurrence of the former shows that they have come to the Choroti and the Ashluslay from the civilized area in the west. Games of chance in S. America have consequently an evident westerly extension. (Map 27). They are mentioned by GARCILASSO DE LA VEGA[1]) and by COBO[2]) with regard to the Incas, by MEDINA and MANQUILEF and others as to the Araucanians in Chili, and by LUIS DE LA CRUZ as to the Peguenche in Argentina. During my travels in the Chaco I have seen games of chance among several tribes mentioned below. HAWTREY mentions games of chance among the (8) Lengua and DUCCI among the (9) Toba de Taccagalé.

The (1) Choroti as a rule play games of chance in the following way. First they make a Counting-board on the floor, i. e., they make a row of shallow holes. (Fig. 47).

Holes 1 and 21 are the «homes» of the opponents. In each of these holes a peg or an arrow[3]) is stuck at the beginning of the game. In 2—10 and 10—20 smaller pegs are

[1]) Libro II, Cap. XIIII, p. 40.
[2]) Vol. 4, p. 228.
[3]) See ERIC VON ROSEN (I) Pl. 17, 1.

[text continues on p. 155]

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6

stuck, usually called «sheep»; 11 is empty and is called the lake or the river[1]). 524

Two, four or more persons can play. For dice they have four pieces of wood which are convex on one side and, on the other, flat or concave. The convex sides are often ornamented.

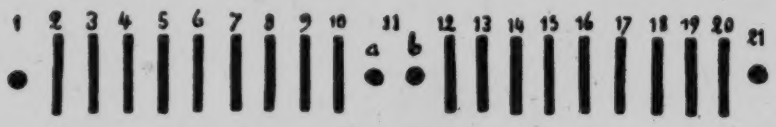

Fig. 47. Counting-board of the Choroti.

The players take two wooden dice in each hand and throw them against each other so that they fall on the floor. The points are reckoned thus: —

4	convex	sides	up	counts	4
3	»	»	»	»	0
2	»	»	»	»	1
1	»	side	»	»	0
0	»	»	»	»	2

Thus, if A begins and throws 2, he puts his arrow in 3; should he thereupon throw 1, he puts it into 4, etc. A plays until he throws 0, when B begins and plays until he throws 0. When A gets over 11 and B under 11, they knock out the pegs from the holes to which they come. The aim is to be first to knock out all the pegs on the side of one's opponent. Play is always from one side to the other, turning at the «homes». When a player catches the marker of his opponent, the latter is knocked out and must begin again, not, however, from his «home» but in the hole nearest to the home where he has a peg. This is knocked out. When all the pegs of one's opponent are knocked out, the opponent's

[1]) These explanations I have received in Spanish. The Chané and the Chiriguano call 1 and 21 «0» «home» and 11 they call «0» water. The Tapiete do the same.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

marker has to be knocked out. Having done that, one has won the game. Should anyone while playing reach 11, i. e. fall into the water and not succeed in getting away at the next throw, but throw O, he must return to the hole in which he still has a peg nearest to «home». Should only the two markers be left, and one fall into the water, the player not succeeding in getting away at the next throw, but throwing O, the game is then drawn.

With small variations the Ashluslay, (6) Mataco, (7) Toba, (3) Tapiete, (4) Chiriguano, and (5) Chané play in a similar manner. The number of «sheep» a player has varies somewhat in different tracts but his opponents have, of course, always the same number. Only among the Choroti and the Ashluslay is the lake or river duplicate. The reason is unknown to me.

The Chané Indians call this game «Chunquánti». Cobo[1]) writes that the Indians of Peru have a game which they call «Chuncara». In this game they made use of a flat stone or a piece of wood in which five holes were hollowed out. Beans of different colours served as markers. A die was cast, and according to the result of the cast, the player proceeded in the holes until the end was reached. The first «home» counted ten, the second twenty, and so on till fifty.

Garcilasso de le Vega[2]) says that the Incas called the players «Chuncа Camayu» and all games «Chuncа» ten. This was because they always counted in tens in their games.

«We play», in their language, was «Chuncasum» which means literally «we reckon in tens». It is evident that the

[1]) Vol. 4, p. 228: «*Chuncara* era otro juego de cinco hoyos pequeños cavados en alguna piedra llana o en tabla: jugábanlo con frisoles de varios colores, echando el dado, y como caía la suerte, los mudaban por sus casas hasta llegar al término: la primera casa valía diez, y las otras iban creciendo un denario hasta la quinta, que valía cincuenta.»

[2]) Gómara says, p. 278, of the Inca: «Juegan con un solo dado de cinco puntos, que no tienen mayor suerte.»

[3]) Libro II, Cap. XIIII, p. 40.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

Chané have received the name Chunquánti from the Quichua language. The Choroti word for game, «tsúka», and the Ashluslay name «tsukoc» are plainly derived from Chunca.

Just as in Sweden backgammon players, in counting, use words derived from the French language, e. g. «tres ess, cinca dus, troya-dus», etc., the Indians of the Gran Chaco employ words for reckoning derived from the Quichua language. When the Ashluslay and Choroti make a cast counting four points, they say «tauva» which, in the Quichua tongue, signifies four. When reckoning in other connections the Ashluslay say «it-chat-cúch» for four and the Choroti «imulitse» or «imujlitsi». When the Ashluslay throw three points they say «chimí». Three, in the Quichua tongue, is «quimsa», in the Ashluslay «pú-shana». The Choroti, for the same throw, only mark two, and say «kirá». Otherwise they say for two «ti-mes» and for three «nahape». For one point the Choroti say «tsúka» and the Ashluslay «tsuká» which is also the first name for the game. «Chunca» signifies ten in the Quichua tongue and we recollect that, according to GARCILASSO, the Incas in their games always reckoned in tens.

This circumstance, that the game of chance in question has in the Chaco a name derived from the Quichua language and there used for «game» generally, and the fact that, in the Chaco, Quichua expressions are made use of in games *show that the Tsúka or Chunquánti game derived originally from the area of civilization in the west.*

As I have already pointed out in an article in the Zeitschrift für Ethnologie in 1910, there is a remarkable similarity betwen the Tsúka or Chunquánti game and certain North American games described by CULIN. It would appear from this that these games or, at least, similar games belong to a very ancient layer of civilization in America.

In another article in the above mentioned magazine I have recently endeavoured to prove that some peculiar objects found in Peru and Ecuador, and described at length by

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

Games with maize leaf balls which are struck with the hands (Map 29) have quite an different area of occurrence. Balls of this kind occur in the collection of ERIC V. ROSEN (R. M. 03.3. 199—201) from the Choroti. I have seen balls of this kind among the (4) Chiriguano, (40) Guarayú, (23) Churápa, and (24) Chimane. K. v. d. STEINEN[1]) mentions them from the (28) Bakaïrí and (14) Bororó, KOCH-GRÜNBERG[2]) from the tribes on the Rio Caiarý and Rio Aiarý, ST. CRICQ[3]) from the (46) Conibo on the Rio Ucayali, SÁNCHEZ LABRADOR[4]) and BOGGIANI[5]) from the (12) Mbayá, KRAUSE[6]) from the (13) Karajá, HAWTREY[7]) from the (8) Lengua, IM THURN[8]) from the (47) Macusi, GILIJ[9]) from the (74) Tamanaco, and KOCH-GRÜNBERG[10]) from the (47) Roraima area as well as from southern (V 5) Venezuela.

Probably such balls are in vogue also among a number of other Indian tribes. It seems, however, that for the present, at least, they are to be reckoned among the elements of civilization occurring chiefly in the northern area.

Among the Choroti, Mataco, and Ashluslay there are some other playthings besides the above-mentioned. The playthings of Indian children have, however, been too little studied for us to be already able to determine the area of occurrence of the various playthings.

The Choroti, Ashluslay and probably also the Mataco make so-called *cats-cradles* I have also seen them among

[1]) (3). p. 329 and 496.
[2]) (2), Vol. 2, p. 126.
[3]) p. 289. »balle de feuilles de palmier» — *probably wrong; should be maize-leaf balls.*
[4]) Vol. 2. p. 18, Fig.
[5]) (2), Fig. 51.
[6]) p. 312.
[7]) p. 277.
[8]) p. 326.
[9]) Vol. 2 p. 267.
[10]) (3). p. 79, Fig. 8.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

the Toba, Tapiete, Yuracáre and Cavina. HAWTREY[1]) mentions cats-cradles from the Lengua, DUCCI[2]) from the Toba on the lower Pilcomayo, KOCH-GRÜNBERG[3]) from N. W. Brazil, ROTH, LUTZ and KOCH-GRÜNBERG from Guiana, KISSENBERTH[4]) from the Tapirapé and EHRENREICH[5]) and KRAUSE[6]) from the Karajá.

This game is undoubtedly played by many other Indian tribes, though nothing is known about it. The game, which is played not only by children but also by adults, is one of the elements of civilization the distribution of which can only be determined after further exploration.

A 524 481 The same holds good of stilt-walking. I have seen it among the Ashluslay, and elsewhere only among the Cavina on the Rio Beni. Stilts are also mentioned by KOCH-GRÜNBERG[7]) from the Siusí in N. W. Brazil and by MANQUILEF[8]) from the Araucanians. The *bull-roarer* may also be included here. In S. America this is seldom anything but a plaything. I have in my collections, besides those from the tribes here dealt with, bull-roarers from the Chiriguano, Chané, Yuracáre, Guarayú (Mission), Chacobo, and Itonama. KARL V. D. STEINEN[9]) mentions the bull-roarer from the Bororó, Mehinakú, Nahuquá and Bakaïrí and EHRENREICH[10]) from the Ipurina.

A C 524 The Choroti and Ashluslay have a kind of peculiar *dolls* (fig. 46) which I have described and illustrated in a special little article in the Ymer magazine and in my book »Indianerleben». Whence they got the idea of these dolls I will not venture to

[1]) p. 285.
[2]) p. 6.
[3]) (2), Vol. I, p. 120, 253 and Vol. 2, p. 127.
[4]) (2), p. 78.
[5]) (2), p. 30.
[6]) p. 312.
[7]) (2), Vol. I, p. 119.
[8]) p. 111. fig. 3.
[9]) (1), p. 327 and 498.
[10]) (2), p. 71.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

say. In addition to the above-mentioned tribes I have seen them among the Toba, Tapiete and Mataco. The Choroti dolls are remarkable for the face-tattooing being so accurately performed, though it is done on the body. Dolls made of the toe-joints of ostriches also occur among them. The Toba and, according to HAWTREY[1]), the Lengua also have dolls of this kind.

[1]) P. 297.

A C 524

Fig. 48. Skin-drum stick (2/10). 1/3.

A C 534

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

Chapter XIX.

Ceremonial games.

M 524 177

During my stay among the Choroti my attention was drawn to a curious game which was played in all villages in the month of March and evidently had some mystic meaning. The game later on turned out to be »international» in the Chaco, most tribes knowing it and playing it in somewhat different forms. The Choroti call it *syuke*, the Tobas *soka*, the Ashluslay *syúkak*, etc., names which are evidently nothing but different corruptions of the Quichua word *chunca*, ten. Similarly the playing terms in the Chaco are as it were international and of Quichua origin, a fact which seems to support the assumption that at any rate the principal ideas underlying the game have been borrowed from the Quichua Indians.

C 524

I have only studied this game among the *Choroti* and the description I shall give of it in the following pages refers merely to the variety of the game existing among these Indians.[1])

The dice consist of four pieces of wood, which are on one side convex, on the other side quite flat. The convex side is often ornamented with certain incised figures. (See fig. 10, a.)

The player takes two dice in each hand, throws them up smoothly against each other and allows them to fall on the ground. The position taken by the dice on the ground determines the value of the cast. The points are reckoned in the following way:

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[1]) Nordenskiöld described this game in 1910 in *Zeitschrift für Ethnologie*, but its magical or religious significance — which, of course gives it its particular interest — has entirely escaped him. This may in part be due to the fact that Nordenskiöld never saw the game played at the proper season, the beginning of the »winter», but arranged playing-parties at an other season to learn how it was played. On the other hand, it is a well-known fact that many ceremonies, which are in their character magical or religious, have been misunderstood by ethnologists and regarded as purely profane entertainments.

M [114]

[p. 201]

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

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4	convex	sides	upwards	counts	4.	This	is	called *tauva*.
3	»	»	»	»	0.	»	»	*lahipa*, nothing.
2	»	»	»	»	1.	»	»	*shuke*.
1	»	»	»	»	0.	»	»	*lahipa*.
0	»	»	»	»	2.	»	»	*kima*

The counting-board is drawn on the ground and consists of a crescent-shaped row of shallow holes or grooves, 23 in number (Fig. 10, *b*). The

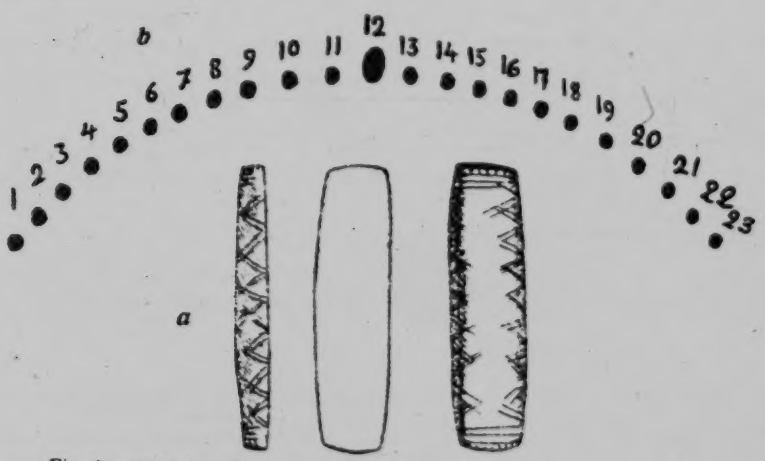

Fig. 10. The Counting-board for *shüke* game and the wooden dice.

numbers 1 and 23 signify the starting-points or »houses» of the players. In each of these grooves every player at the beginning of the game sticks an arrow which serves as a marker. In 2—11 and 13—22 small pegs or cobs of maize are placed, which are called the »sheep» of the players. The groove numbered 12 is empty and somewhat larger than the rest. This is called the »lake» or »river (*tauk*) and arriving there a player is said to be »drowned».

The players may be two, four, six, or eight. If we take the simplest case, when the players are only two, A and B, the game is played in the following way:

A begins and throws, for instance, 2 (*kima*). Then he puts his arrow into the second groove reckoning from his »house», that is to say into

2: Karsten E-5 (1911-1913)1932 SI7 Matacc

Choroti SK6

number 3. He repeats his throw and throws for instance, 1 (*shuke*). Then he puts his arrow into number 4, and so forth. A continues until he throws 0, whereupon B begins and continues until he throws 0. B thenstarts from his »house» number 23, proceeding backwards. If a player passes the »river» (12) and enters a hole occupied by his opponent, he is entitled to throw out his opponent's »sheep». The object of the game is at first to throw out all the »sheep» of the opponent, the player passing from one end of the series of grooves to the other and back again. If a player succeeds in placing his marker (arrow) in a groove where his opponent happens to have his own marker, the latter is »killed» (thrown out) and has to start again from the beginning. Every player tries to throw out all the »sheep» of his opponent and at last his marker also. If he succeeds in doing so he has won. If someone during the game arrives at the »river» (*tauk*), he is »drowned», and if by the following throw he does not succeed in getting out, (that is, if he throws 0), he is obliged to go back to that groove situated nearest to his »house» where he has still a »sheep».

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Gambling is always connected with the *shuke* game, and the stakes lost — whether it be a collar, a shirt, a pair of trousers or some other valuable object — are always scrupulously paid as real debts of honour. This is no doubt in part due to the fact, that the *shuke* game is not a hazard game in the ordinary sense of the word, but has a ceremonial significance. If the debts were not scrupulously paid, the game would fail to produce the effect which the Indians expect of it, namely, the increase of the edible fruits of the forest.

525 789

What struck me particularly with regard to the *shuke* game was the fact that, at any rate among the Choroti Indians, it is only played at a certain time of the year, more strictly speaking, in the month of March, when the rainy season on the Chaco ends and the dry season or »winter» begins. Then everyone began upon it at once. In all villages *shuke*-dice were carved and the game went on every day for many hours, sometimes from early morning till late in the evening. This very fact seemed to me to indicate that certain mysterious ideas were connected with the game. Besides, the game was played in a strikingly intensive, almost nervous tempo and the results of every cast — *tauva*, shuke, *kima* — were always shouted out in a very loud voice, which could be heard far away.

524 789

The Chorotis expressly declared to me that the *shuke* game is played only at the beginning of the »winter», when the algaroba (*Prosopis alba*) and other edible fruits of the forest grow scarce. At that time a period begins for the Chaco Indians when they usually have to struggle very

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK

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hard for existence. Now the game is supposed to have the effect of *increasing the fruit and making the Indians rich*. This is made possible by virtue of the fact that *among the Indians »there is always someone who wins«*, from whose luck all will benefit. The Indians believe that just as they can influence the course of nature, »hurry on» the growth of the crops, by beating drums, dancing, and shaking rattles, so they believe that at this critical period they can enhance the vegetative power of the useful trees and prevent starving by playing *shuke*. It seems to me probable that in this game the magical effects are produced merely by the procedure of playing — by the feverish pace at which the game goes on, and so forth — just as technique and the very rhythm play an essential part in such magical ceremonies as dancing and the beating of drums.

M 524 177 114

That the *shuke* game, so far as its principal features are concerned, has been borrowed by the Choroti from the mountain Indians, as has been suggested even by Nordenskiöld, is a matter beyond doubt and may be inferred from the playing terms themselves which are of Quichua origin (*shuke* = *chunca*, *taura*, and probably *kima*). On the other hand, it is certain that the Incas never had an exactly similar game, and Nordenskiöld's imagination carries him too far when he tries to show that certain objects, found in archeological excavations on the mountain area of Ecuador, are nothing but counting-boards which have been used for a game more or less identical with the *shuke*. [1] Nordenskiöld's curious idea of connecting the said mysterious objects with the *shuke* game of the Chaco Indians entirely loses its importance in the face of the fact that, as I have shown elsewhere [2], the ancient Peruvian and Ecuadorian Indians had several »games of chance», none of which bore the slightest resemblance to the Chaco game just mentioned. The map published by the same ethnographer, showing the supposed distribution of »games of chance» in South America, was therefore decidedly prematurely drawn. [3] The particular character of the Chaco game has obviously, in

[1] See his article »Spieltische aus Peru und Ecuador», in *Zeitschrift für Ethnologie*, Heft 2 u. 3, 1918, p. 169.

[2] See my *Ceremonial Games of the South American Indians* (*Societas Scientiarum Fennica. Commentationes humanarum litterarum*. Helsingfors, 1930).

[3] Whereas Nordenskiöld erroneously assigns the neighbourhood of Quito in Ecuador as a region where a game like the *shuke* has been practised, he knows nothing of the games of chance I have myself discovered later in that country: the *huairu* game practised in the southern and eastern mountain regions, the *huairitu* and *singu* in vogue among the forest Indians on the rivers Bobonaza and Pastaza.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

from a tribe they called Manslé, said to be living in the neighbourhood of Rio Paraguay.[1] Thus the spangles of which the Tapiete were in possession had, by way of trade between the tribes, been transported *at least* 360 miles from the place where they had been made.

Among the Choroti, the long spangle necklaces (as seen in fig. 56) served them as a kind of currency. So, for instance, the value of an Indian woollen mantle was expressed in a certain number of arm-lengths of such a necklace, and that of a head of cattle in some other, definite, number of arm-lengths. In gambling, the stake often consisted of snail-shell spangles or whole necklaces.

There were also other objects which formed articles of trade between the Indians. On page 81 I have mentioned a wooden comb which probably originates from the Chiriguano, and on page 78 I have reproduced a small wooden bowl containing colouring seeds that have probably come from the same tribe. The child's poncho, fig. 35, has probably been bought by some Choroti from an Ashluslay; it is also possible that a few other objects in my collection have found their way to the Choroti Indians through barter with neighbouring tribes.

[1] Nordenskiöld (13), p. 137.

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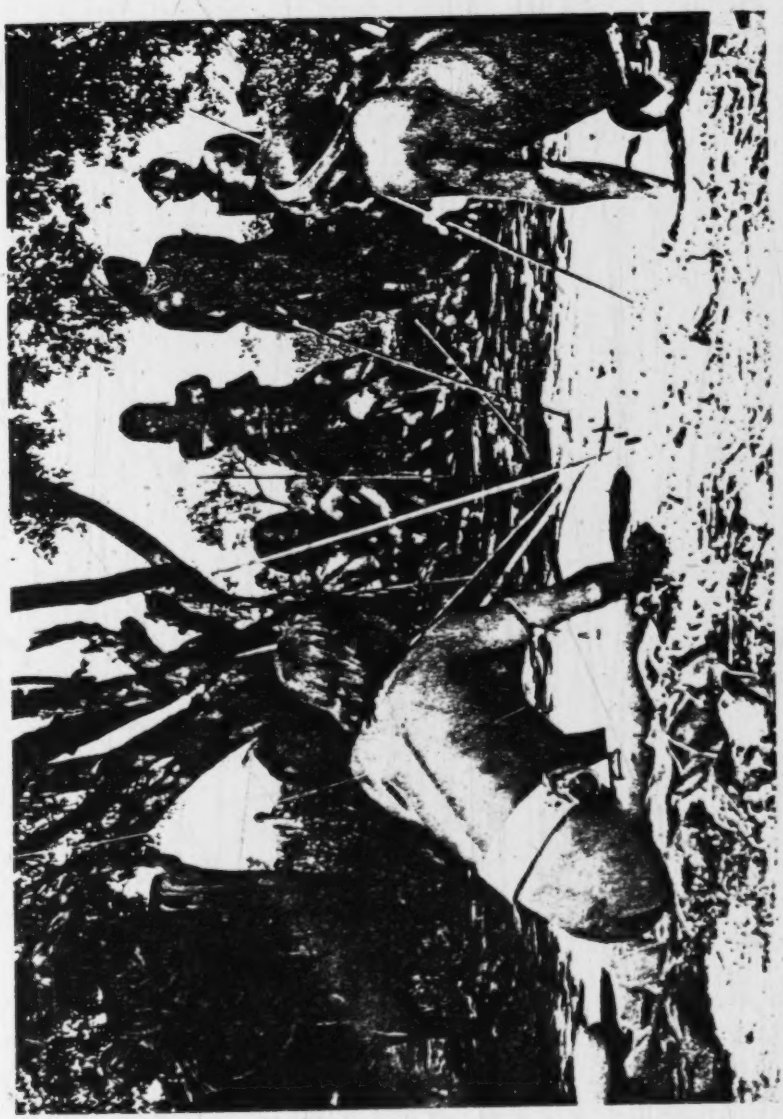

Fig 171. Men who are engaged in playing a gambling game called chukes. The scoring is done by means of arrows stuck into small holes in the ground, usually arranged in the way seen in fig. 173. On account of the shadow thrown by the arrow nearest the foreground, the holes next to this arrow, although strongly sunlit, can be seen. The third arrow from the foreground is planted in the arrows (see page 173). From this picture, as from the diagram, fig. 173, will be seen that the row of holes at times may be laid out so as to form a curve or an obtuse angle.
Choroti. Gran Chaco Bolivia. Photo. E. v. R.

[p. 152 is blank]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

The Choroti takes much pleasure in games and pastimes. Fig. 171 shows some Choroti men engaged upon a gambling game called »chuke», which in the Chaco is widely known and very popular. It is a kind of dicing game, although the dice, unlike ours, are not cubes but consist of planoconvex or concavo-convex sticks of wood or cane, usually about a decimetre long. Four playing sticks are always used. The convex side of the playing sticks is generally ornamented by burning or carving, so that it may quickly be decided, after each throw, which side has come uppermost (fig. 172). When the Choroti are preparing to play chuke, they dig little holes in the ground, in the way shown in figs. 171 and 173.[1] The men playing at a game of chuke may number two, four, six, or eight. I have never seen women playing chuke. If we suppose that only two persons are playing this game, this is the way it is done:

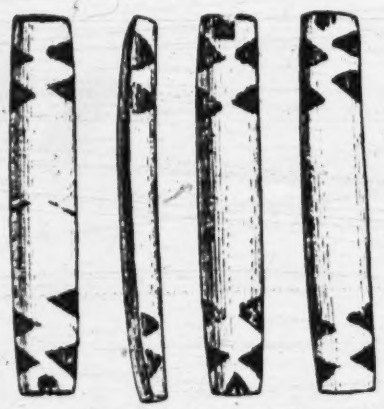

Fig. 172. Counters, of yellow wood, plano-convex, with ornament burned in. Used in the game of chuke. Choroti, Gran Chaco, Bolivia. ⅓. Riksm. no. 3. 70.

The holes numbered 1 and 23, respectively, are the »homes» of the players. A plants one of his arrows in No. 1, and B one of his in No. 23. These arrows (pointed sticks will also do) represent the two players. The hole numbered 12 is called the »lake» or the »river»; it constitutes the boundary between the fields of the two players. Into the holes numbered 1 to 11, A places his »chips», or counters, consisting of bits of grass, wooden sticks, chips of wood, or seeds, and B puts his into the holes numbered 13 to 23. These counters are called »sheep». A takes two playing sticks (see fig. 172) in either hand, and throws them against each other so that they may touch when they are falling to the ground. The players then look to see how many sticks have fallen with the convex side up, and the value of the throw is calculated in accordance with the following scoring system:

[1] A somewhat different system as to the number and arrangement of the chuke holes is also in use. Nordenskiöld (11), p. 163–164.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

525 4 convex sides upturned count 4 points,
0 » » » » 2 »
2 » » » » 1 »

A throw resulting in odd numbers of convex sides turning up is valueless, i. e., counts 0 points.

Supposing A makes a 4-point throw, this entitles him to move his arrow to the fourth hole from his »home», that is to say, to No. 5. If he had made an 0 score, his adversary would then be in turn for throwing the sticks, but as it is, A is by the rules allowed to go on and then makes, say, 2 points (i. e., no convex side up) and accordingly moves his arrow another two holes, to No. 7. If his next throw results in nil, then he must not move his arrow. It is now his adversary's turn, and

Fig. 173. Arrangement of holes in the ground, for the game of »chuke». From Karsten (5), fig. 5.

if he makes 1 point with his throw, he moves his arrow from his »home», which is No. 23, to No. 22 hole. If his next throw counts 4 points, he moves his arrow 4 holes, to No. 18. A zero throw breaks the sequence, and changes the turns for A and B to throw. Eventually, when either player makes a throw which carries him across the »river» (No. 12 hole) so that his arrow has to be placed in a hole within his opponent's field, he takes the »sheep» that are in that hole. Should a player make a throw which lands him in the »river», he scores a no throw, and is not allowed to play again until his opponent has completed an entire round. If the player who is in the »river» should from that position make a zero throw, then he has to move his arrow back to the hole nearest his »home» where he still has some »sheep» left. And if, for instance, A should knock B's arrow out (see below) before he has taken all his »sheep», then B has to move his arrow back to his »home».

After a player has reached the end of the row of holes, he starts back towards his own »home», and moves his arrow according to his throws, as before. In this way the arrows wander forward and back

1: Rosen E-5 (1901-1902) 1924 SK6 Chorotí SK6

again until a player has taken all his adversary's »sheep«, when it remains for him to try and takes his arrow too. In this he succeeds if he can make a throw which lands him in the hole where his opponent's arrow happens to be. If he does that after having taken all his opponent's »sheep«, then he has won the game.[1] 525

The Choroti are enthusiastic chuke players, and as a rule play for stakes. On this game they can stake snail shell necklaces, woollen mantles and other things, often representing considerable values to the Indians. According to Karsten, the chuke game may also be played for purposes of magic. It is mostly played when there is a dearth of food, for the Indians believe that they are able to make the wild fruit grow in larger quantities by assiduously playing chuke.[2] [789]

Playing with a ball is a much favoured pastime. A ball game resembling hockey is played among the Choroti and several other Chaco tribes. The players divide themselves into two teams, each having its goal to defend. The distance between the goals depends on whether grown-ups or children are going to play, the distance being greater in the case of the former. Each goal is marked by branches stuck into the ground. A wooden ball is thrown into the centre between the goals by an Indian who is not taking part in the match. By means of »hockey« sticks consisting of the leaf-stalks of a palm, grown with a natural bend (fig. 174), or of tree branches, the players then try to drive the ball so that it rolls into the goal that their opponents are defending (fig. 177). As will be seen, this game is played on the same principle as our hockey, by attacking and defending. It was a great pleasure to watch Choroti boys playing hockey, in which their native lissomness was exhibited. 526

I also saw Choroti children play at ball. Their hand-balls consisted of dry maize leaves tied together in the way seen in fig. 175. They have the appearance of old-time flaming hand grenades, and, whichever way they are thrown, they always fly »ball« foremost and the »fiery tail« pointing backwards or upwards.

The Choroti boys make themselves both long-bows and pellet-bows with which they shoot at a mark, or use in play in other ways; they also amuse themselves with a kind of light, two-cord bolas[3] and with little

[1] Cf. Nordenskiöld (11), pp. 163–164, and Karsten (5), pp. 100–102.
[2] Karsten (5), p. 102.
[3] Nordenskiöld (13), fig. 24.

2: Karsten E-5 (1911-1913)1932 SI7 Matacc

Choroti SK6

number 3. He repeats his throw and throws for instance, 1 (*shuke*). Then he puts his arrow into number 4, and so forth. A continues until he throws 0, whereupon B begins and continues until he throws 0. B thenstarts from his »house» number 23, proceeding backwards. If a player passes the »river» (12) and enters a hole occupied by his opponent, he is entitled to throw out his opponent's »sheep». The object of the game is at first to throw out all the »sheep» of the opponent, the player passing from one end of the series of grooves to the other and back again. If a player succeeds in placing his marker (arrow) in a groove where his opponent happens to have his own marker, the latter is »killed» (thrown out) and has to start again from the beginning. Every player tries to throw out all the »sheep» of his opponent and at last his marker also. If he succeeds in doing so he has won. If someone during the game arrives at the »river» (*tauk*), he is »drowned», and if by the following throw he does not succeed in getting out, (that is, if he throws 0), he is obliged to go back to that groove situated nearest to his »house» where he has still a »sheep».

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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[1] Cf. Nordenskiöld (11), pp. 162–164, and Karsten (5), pp. 100–102.
[2] Karsten (5), p. 102.
[3] Nordenskiöld (13), fig. 24.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6
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›pea-shooters‹ of reed.[1] With the latter they fire off hard kernels, clay pellets, etc. Very small children are given small rattles made of woody fruit shells with dry kernels inside, which make a rattling noise when shaken. Girls are very fond of playing with dolls. These are modelled in clay by some female relative, usually the girl's mother, and are usually fashioned in the shape seen in fig. 176. This doll, which represents a woman with strongly developed breasts, is, however, not from the Choroti but from the Toba, a tribe with whom I also came in contact during our journey. It would appear as if the Choroti mothers in making these dolls attach the greatest importance to reproducing the breasts as true to nature as possible, and often they also try to copy the tattoo marks on the face. The Choroti dolls, however, often being made either without, or with very small, heads, the tattooing is mostly marked on the breast of the figure.[2]

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Fig. 174. ›Hockey‹ stick, consisting of the leaf-stalk of a palm. Choroti. Gran Chaco, Bolivia. 1/9. Riksm. 03. 3. 203.

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Not only Choroti children, but also grown-ups occasionally while away time by string tricks more or less resembling those which children of our own country sometimes amuse themselves with.[3]

I have had frequent opportunities of seeing Choroti children at play, and have found their games and sports in many ways similar to those of our own children. Indian children play ›tag‹, play being at war, at hunting and fishing, and also imitate other occupations and doings of their elders.

Fig. 175. Hand ball, of maize leaves. Choroti. Gran Chaco. Bolivia. 1/9. Riksm. 03. 3. 199.

Fig. 176. Child's doll, made of clay. Toba. Gran Chaco. 1/1. Riksm. 03. 3. 805.

[1] Nordenskiöld (13), fig. 23.
[2] Cf. Nordenskiöld (20), figs. 4—18.
[3] Nordenskiöld (13), fig. 25.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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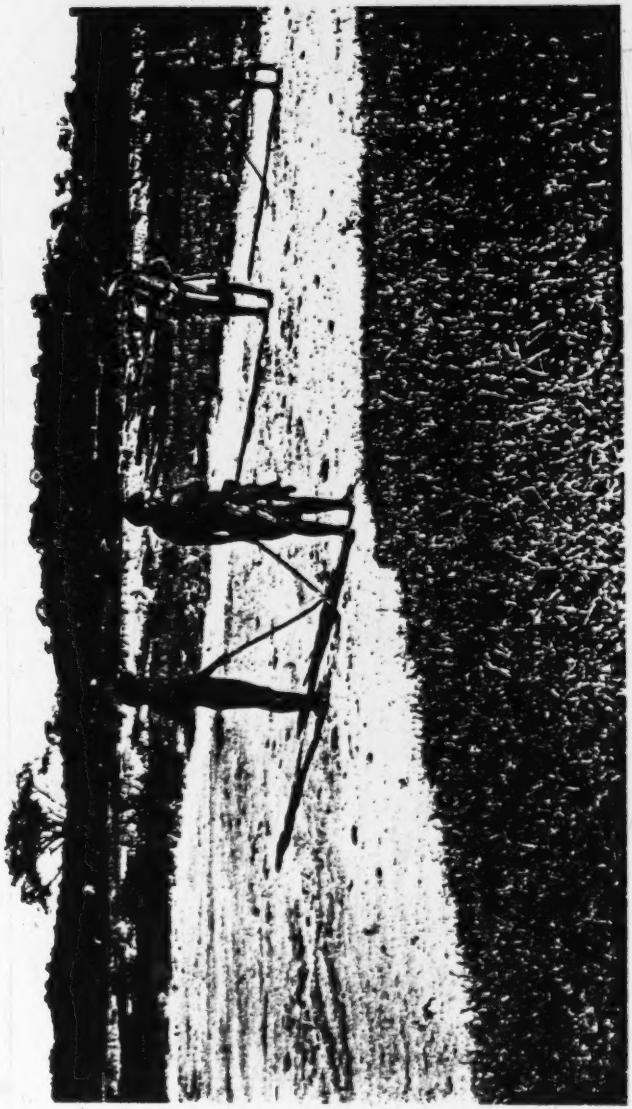

Fig. 177. Boys practising a ball game resembling hockey. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

RIVET and VERNEAU[1]), have been employed in games of chance similar to others now played by the Choroti and other Indians in the Chaco. The places where these objects were found are indicated in the map showing the distribution of games of chance. (A. K. L.)

In the Chaco, among the tribes here dealt with, I have only seen one game of skill, viz. a *ball game with a bat*. (Map. 28). Such ball games I have found besides among the (1) Choroti, (6) Mataco and (2) Ashluslay[2]), among the (4) Chiriguano (7) Toba, and (3) Tapiete. Formerly this game was probably played by the Churápa Indians too. These ball-games are best known from the (10) Araucanians. When the first Conquistadors came to the Araucanians, they saw them playing at ball with wooden bats[3]). To this day it is the national sport of these Indians[4]). SÁNCHEZ LABRADOR[5]) mentions this game from the (12) Mbayá, HAWTREY[6]) from the (8) Lengua, BOGGIANI[7]) from the (11) Chamacoco, and DUCCI[8]) from the (9) Toba on the lower Rio Pilcomayo. This kind of ball game, as we see, occurs chiefly in the southern part of S. America. Nevertheless I do not consider it incredible that originally it came to the Indians of the Chaco, and to the Araucanians, from the mountain area of civilization.

[1]) (4), p. 244. See NORDENSKIÖLD (10).
[2]) See »Indianerleben». Page 71.
[3]) LENZ, p. 322. After LOYERA, p. 138.
[4]) See EULOJIO ROBLES RODRIGUEZ.
[5]) Vol. 2, p. 12.
[6]) p. 207.
[7]) (1), p. 61, Fig. 35.
[8]) p. 7.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

286 Among the Choroti, I have only seen a very few individuals wearing
291 the poncho, and the only specimen of this garment I succeeded in obtaining belonged to a half-grown youth. This poncho (fig. 35) consists of a woollen fabric, 160 cm long and 61 cm broad, in the middle of which there is a slit, 26.5 cm in length. The weaving consists of two-threaded, tightly spun yarn of greyish white (the natural colour of the wool) and red (now faded). Its ornamental design is formed by three broad, decorated strips, woven on double warp, so that on one side the pattern shows greyish white on red ground, and on the other side red, on greyish white ground. The fabric between these strips is rep, with the woof of greyish white yarn. Whether this poncho is of Choroti weaving, one cannot be certain. Possibly it has been obtained by Choroti from their Ashluslay neighbours, seeing that similar garments are not uncommon among the latter.[1]

[531]

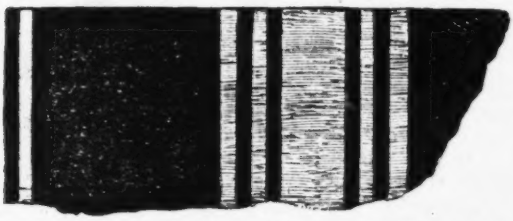

Fig. 33. Corner of man's mantle which is 204 cm long and 185 cm wide, of brownish-red wool, woven with groups of greyish yellow stripes. Gran Chaco, Bolivia. 1/4. Riksm. 03. 3. 1.

[531 171 422]

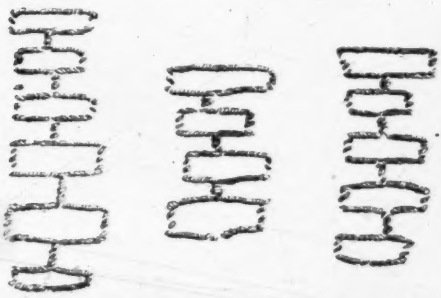

Fig. 34. Ornaments (probably property marks), placed in the middle of the mantle, a detail of which is seen in fig. 33. 1/2.

292 In the huts of the Choroti I frequently came across a kind of thick shirts, knitted from tightly spun
714 caraguatá-fibre threads (fig. 36), but I never saw them in use. In reply to my questions as to the reason for this, I was told that these garments are chiefly worn in fighting, when they are used as a protection against
[171] arrows. Caraguatá shirts are also used by the Ashluslay and the Mataco,[2] but in the literature on those Indians I have found no reference as to their being used as a protection against arrows. The Chiriguano, however,

[1] Nordenskiöld (11), pp. 111 and 112.
[2] Nordenskiöld (11), p. 107.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

as well as the Chaco tribes of the Guaikurú group, like the Choroti, wear these garments as war shirts.[1] In all the tribes just referred to (and the Ashluslay and Mataco as well), such shirts are worn exclusively by the men. The Caraguatá shirt here reproduced is knitted very tightly and closely (fig. 37), and, although its length is only 56 cm, exclusive of the shoulder straps, it weighs as much as 1.4 kg. The stripes that are worked in by way of ornamentation, have been formed by using string dyed black, and string dyed brown, alternately, in knitting. The parts that are between the stripes consist of undyed fibre. At the bottom edge of the shirt, small pieces of red and yellowish brown cloth have been tacked on; these originate from the whites.

Fig. 35. Child's poncho (a boy's) of wool, with woven ornaments. Ground colour brownish-red; ornament yellowish-grey. Choroti (probably manufactured among some other tribe). Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 4.

These mail shirts of caraguata fibre string are exceedingly well manufactured, and undoubtedly form a good protection against the Chaco Indians' arrows, which are usually wooden-pointed. Arrows with rod-shaped, iron wire points, or with leaf-like, edged, iron heads, on the other hand, would probably pierce even the thickest and most closely knitted caraguatá shirt. The shoulder straps in these mail shirts are knitted considerably thinner and less closely than the rest of the shirt, and this is only natural, as the function of the straps is to suspend the shirt, and not to give protection against arrows. Besides, they could only be hit by arrows dipping at an angle from above.

[1] Krickeberg (1), p. 131.

[C should be lower case. -Analyst]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

and 40). Miss Agnes Branting, who has kindly examined the textiles here reproduced, found the frontlet in fig. 40 especially interesting, as similar fillets are woven by the peasantry in very many provinces of Sweden, for instance Scania, Halland, Wermland and Helsingland. Miss Branting writes on this matter as follows: »Fillets of this kind are made without any other implement than just any sort of object to which the yarn can be attached, say a weighted pincushion held on the knee. The weaving is begun from the centre of the fillet by crossing one yarn over another; for each turn a yarn is added (from a number fastened with pins) on either side. When the edge yarn has been reached, this is turned inwards, and the plaiting then proceeds from the edges towards the centre. This gives a certain firmness and compactness to the edges, and makes the middle portion slightly thinner, as may be noticed if looked at against the light.»[1]

Sometimes the frontlets are decorated with snail-shell spangles, sewn on, although such pieces of magnificence as the frontlet here shown in fig. 41 are very rare. From fig. 42 can be seen the way this frontlet is meant to be worn. These very decorative snail shell spangles are made from the shells of a large, white land snail (Borus oblongus, fig. 43), common in the Chaco. The Choroti do not themselves make these snail-shell spangles, but obtain them through barter from other tribes.

Narrow frontlets of woollen yarn (see fig. 30: the 3rd and 4th men from the left) or birdskin (see figs. 17 and 30: the boy who is fifth from the left) are of very common occurrence; less frequently seen are frontlets made from palm leaves, some of which are provided with chin straps, so as not to slip easily off the head (fig. 44).

Fig. 38. Legging, of deer skin with yellowish-brown hair-covering remaining. Worn for protection against thorny plants. Choroti, Gran Chaco, Bolivia. 1/6. Riksm. 03. 3. 383.

At dances and other festive occasions, the men are fond of wearing particularly handsome, broad frontlets or head ornaments of stiff or downy

[1] Compare with this a method of hand weaving described from the Choroti by Erland Nordenskiold. Nordenskiöld (12), p. 111.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

292 feathers, tied inside a woven or plaited fillet, usually no more than a
302 centimetre wide, of coarse caraguatá or woollen-yarn (fig. 45).

And it is also principally at dances that the men of the Choroti wear a sort of knitted skullcaps of woollen-yarn, net-like, and with a chin strap.

142 301 304 322

Fig. 30. A man with a woven frontlet of wool (greyish-white and brownish-black), and ear-lobe discs of wood. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

● [531] These hair-nets are often studded with snail-shell spangles (fig. 46), or the chin straps decorated with down (fig. 47). With the magic character of these and other ornaments from the Chorotis,[1] I shall deal in a later chapter.

[1] [should be Choroti — analyst]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

To the frontlets are affixed one or more feathers (figs. 32, 16—18, 24, 30 and others). These are obtained from many different birds, ranging from ostrich and white heron to domestic fowls. The feathers are often nicked,

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Fig. 40. Frontlet, of wool, with angular ornament in brownish-black and greyish-white. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 9.

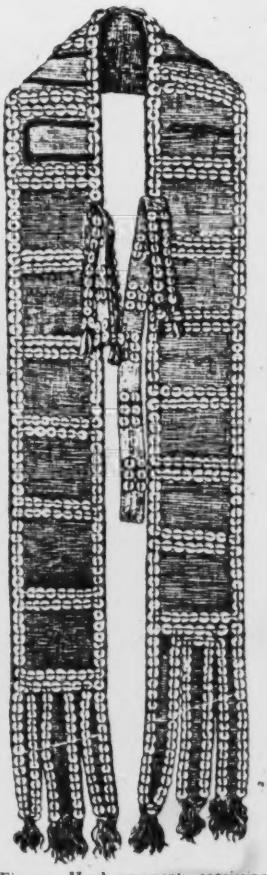
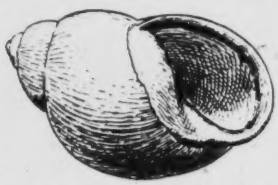


Fig. 41. Head ornament, consisting of a red, woollen, frontlet, 7 cm wide, with snail-shell spangles sewn on, and, in front, beset with turquoise-blue glass beads. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 10. 3. 134.

[531]

Fig. 42. A Lengua Indian with head ornament, »scalp lock» and whistle (the latter hanging round the neck on a string). From Hawtrey.[1]



[825]

Fig. 43. Borus oblongus, a white land snail, common in the Chaco. From its shell the Indians make small spangles, with which they adorn themselves. Gran Chaco, Bolivia. 1/1. Riksm. 03. 3. 47.

[1] Hawtrey (1), p. 282, fig. 2.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

kind, the total length of which may amount to as much as 15 metres. Thus, for instance, the ornamental outfit seen in fig. 56 consists of two necklaces, respectively 4.39 and 4.61 metres long.

Necklaces of mussel- or snail-shells of the shape shown in fig. 57 and 58 are also popular. The necklace, fig. 57, consists of 15 spangles made from shells of the common river mussel of the Chaco. The spangles, which are only slightly more than one millimetre thick, are chipped or ground into more or less circular shape, and in, or near, their centre have a perforation right through. Through these holes a string is threaded, so as to keep the spangles fixed in the way shown in the picture. On the reverse sides the spangles retain the rough, greenish brown surface of the mussel-shell; their front sides display the mother of pearl lustre peculiar to the inner side of mussel-shells. In each spangle the front face is pitted with 4 to 5 shallow borings, which either have a magical significance, or may be only designed to enhance the decorativeness of the necklace.

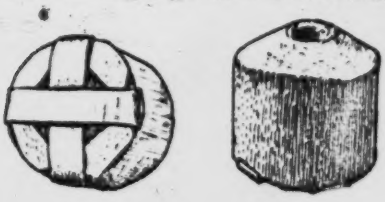


Fig. 54. Ear-lobe discs, of wood with tin mountings. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 57.

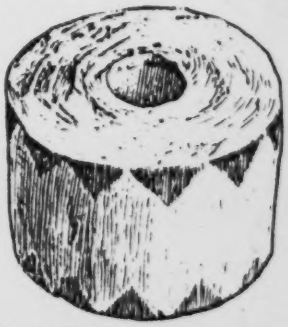


Fig. 55. Ear-lobe disc of wood, bored right through. On its cylindrical surface ornament has been burned in. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 56.

The tags on the necklace shown in fig. 58 consist of rectangular slabs of mussel- or snail-shells. These slabs, which have been very neatly chipped into shape, possess on their front sides a beautiful mother-of-pearl lustre, although they are not of such high opalescence as the spangles in the necklace, fig. 57. The front side of each tag has 3 to 5 shallow borings, the hinder side is bone white. Necklaces of this kind, with quadrilateral tags of mussel- or snail-shell, are specially characteristic of the Chaco.[1]

The Choroti have acquired glass beads from the Europeans, but such beads are far less valued than spangles or the thin plates of snail- or mussel-shells.

[1] Krickeberg (1), p. 132.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

302 bamboo holder, 10 to 15 cm long, and 1 to 2 cm in diameter. The bottom of this cylinder consists of a joint in the bamboo, and for its mouth there is a stopper of wool, grass, bast or bees-wax.

[291] In painting the face, the paint is put on with small stamps, which either consist of the jaw-bone of a siluroid (figs. 81, 88 b) or of a piece of carved wood (fig. 82). Flat wooden stamps with diamond pattern are also used.[1] Those interesting stamps that are made from jaw-bones of fishes, are undoubtedly the prototype of the wooden stamps.

[531]

Fig. 81. Jaw-bone of a siluroid. The row of teeth is used as a stamp for putting on the paint in face-painting. The fore-end of the bone is sharpened to a point, so that this object can also be used in tattooing and blood-letting. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 100.

[304]

[303 515]

Fig. 82. Paint stamp made of a cane splinter. Is used in the same way as the fish jaw in fig. 81. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 94.

For cutting off the hair to the desired length (figs. 16—24, 30, 39, 53 and 83), the Choroti use the jaw of the palometa fish, which is set with exceedingly sharp teeth (fig. 84).[2] These are also used as louse-combs, although the Choroti as a rule carry on their louse-hunting only by the means that nature has provided them with. It is possible that once upon a time palometa jaws formed the only combs that the Choroti possessed, but that they afterwards went out of fashion when the more practical wooden or split-cane combs came into use. Of the latter, we may take it that the split-cane combs are the

Fig. 83. A man with hair hanging loose. Choroti. Gran Chaco Bolivia. Photo. E. v. R.

Fig. 84. Jaw of palometa fish (Serrosalmo sp.), used for hair-cutting. Also said to be a louse-comb. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 10. 3. 29.

[1] Nordenskiöld (11), fig. 42.
[2] Nordenskiöld (13), p. 100.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

or chest of the water carrier.[1] When the pitcher has been filled with water, its mouth is closed with a stopper of grass or leaves.

The cooking pots, which consist of burnt clay (figs. 125 and 126), are also used for roasting various vegetables. Pots of this kind from the Choroti are sometimes given wart-like decorations. These are either placed in rows some distance apart from each other (fig. 125) or in rows close together (fig. 126). This manner of ornamenting clay pots is of extreme antiquity in the New World, and occurs on grave finds right up through North America.[2] The little protuberances on the pot in fig. 125 have been produced in a different way to those on the handleless pot in fig.

Fig. 125. Cooking and roasting pot of earthenware burnt black. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 150.

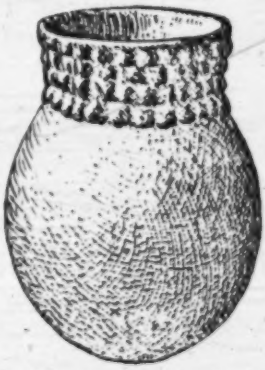


Fig. 126. Cooking and roasting pot of earthenware burnt black. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 10. 3. 54.

126. On the case of the former, they consist of small clay pellets which have been stuck on the pot before burning, whilst the protuberances on the latter probably have been pressed up out of the wet clay by the potters fingers.

All pottery is made by women. The clay is mixed with powdered potsherds, then well kneaded and formed with the hands into rolls, as thick as a finger, with which the pot is built up.[3] When this has been completed as to its shape, its surface is polished by means of a mussel shell or a

[1] Water-drawing and carrying is exclusively a work for women.

[2] See, for example, Holmes (1), pl. XI, fig. g, and Moore (3), fig. 42.

[3] Cf. figs. 217 and p. 214. On the subject of Indian pottery-making, see for example Holmes (1), and Nordenskiöld (19).

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

323 smooth wooden stick, and, if desired, the above mentioned wart-like
[531] ornaments are then put on. Painted clay vessels are not found among the Choroti.

415 For holding water, beer, and other fluids, the Choroti use not only
531 clay vessels but also calabash bottles. Small calabash bottles (figs. 127 and 128) are used for keeping toilet articles, such as colour seeds, beads, and other things. Such articles are also kept in boxes of calabash (fig. 129). Flour is kept in large calabash boxes (fig. 130). Of calabash shell are also made bowls or dippers (fig. 131), and spoons (fig. 132).

Fig. 127. Calabash bottle with incised ornament. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 172.

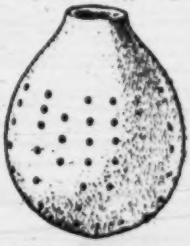


Fig. 128. Calabash bottle inlaid with turquoise coloured glass beads. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 175.

Fig. 129. Calabash box, inlaid with glass beads, and with carved ornament. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 67.

Fig. 130. Calabash box with carved ornament. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 176.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Bottles, boxes, bowls, dippers and spoons, of calabash, are often ornamented in some way or other. Small calabashes (figs. 128 and 129) for toilet articles are inlaid with beads, and on the latter there is also carved ornamentation. The bottle (fig. 127) and the box (fig. 130) have likewise been decorated by carving, but the ornamentation on the dipper (fig. 131) has been produced by burning. Occasionally ornamentation of calabashes has been effected both by carving and burning, an example of such composite technique being the spoon in fig. 132. The ornamentation is sometimes regularly arranged, figs. 127 and 132, but it often seems to have been placed without any plan whatever, as in figs. 129 and 131. According to investigations by Nordenskiöld and Karsten, the latter kind of ornamentation may not infrequently possess an especial significance; representations of human beings, animals, roads, fields, forests, and so on,[1] and its purpose is probably not only decorative but also magical.[2]

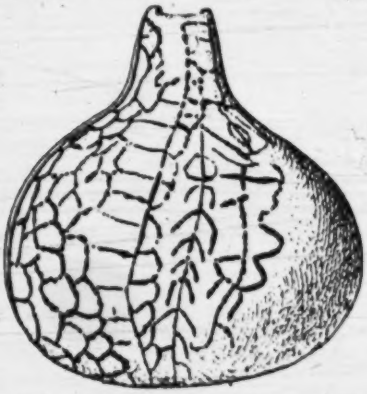


Fig. 131. Dipper, of calabash, with ornament burnt in. Choroti. Gran Chaco. Bolivia. 1/2. Rikssm. 03. 3. 164.

Fig. 132. Ladle, of calabash, with ornament both carved and burnt in. In the figure, the latter are shaded. Choroti. Gran Chaco. Bolivia. 1/2. Rikssm. 03. 3. 166.

Many primitive peoples, in the Old World as in the New, use mussel-shells for spoons. The Choroti have spoons consisting of one of the halves

[1] Cf. Nordenskiöld (13), figs. 62 and 63.
[2] Karsten (3), p. 179.

276 the smoke of tobacco oil. Wooden pipes are often decorated with burnt-in
[531] ornament (figs. 155—157 and 159—161), or, once in a while, with carved ornamentation (fig. 161), or mountings of tin.

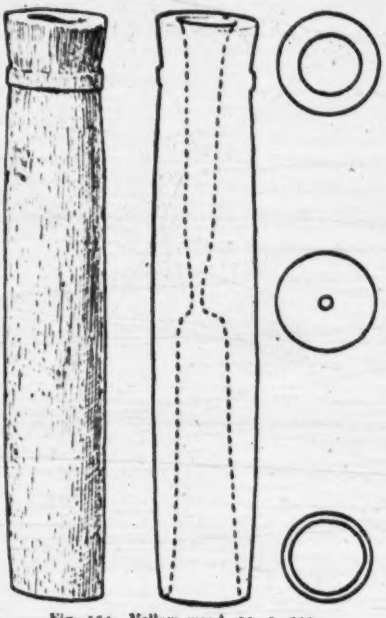


Fig. 154. Yellow wood. 03. 3. 219.

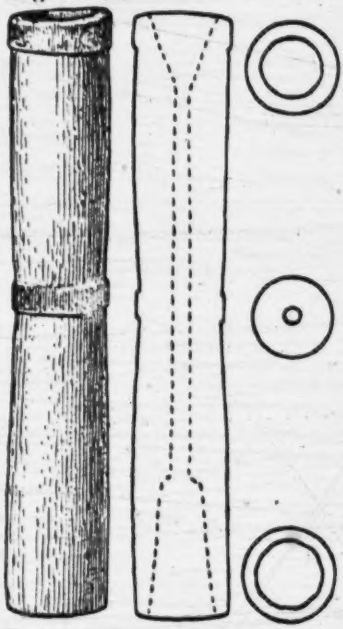


Fig. 155. Yellow wood; the rings carved in relief are coloured dark by burning. 03. 3. 224.

Tobacco pipes of wood. Choroti. Gran Chaco. Bolivia. 2/3. Riksm.

The straight type of pipe much resembles our modern cigar holders, but is nevertheless an ancient American cultural element. Straight tobacco pipes are found in widely separated parts of the New World, and in archæological excavations in North America, pipes of this kind have been found of burnt clay, among other materials, which probably are pre-Columbian.[1]

276 The Choroti Indians never smoke whilst working, or otherwise moving
517 about, but keep this form of indulgence for their sociable talks, their meetings, or drinking bouts. No Choroti, when in company with others,

[1] E. g. Holmes (1), pl. CLVI. For the distribution of the straight tobacco pipe in North and South America, see, for example, McGuire (1), and Nordenskiöld (21).

[text continues on p. 140]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

276 smokes his pipe alone, but lets it pass, by turns, from mouth to
517 mouth. Similarly to other primitive peoples, the Choroti not only take the smoke into their mouths, but also inhale it into their lungs, a method of smoking which apparently gives them great satisfaction.

534 The Choroti are only indifferently gifted for music, and their musical instruments are exceedingly primitive. These consist of flutes and whistles of bone, whistles made from skulls, disc-shaped whistles made of

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531]

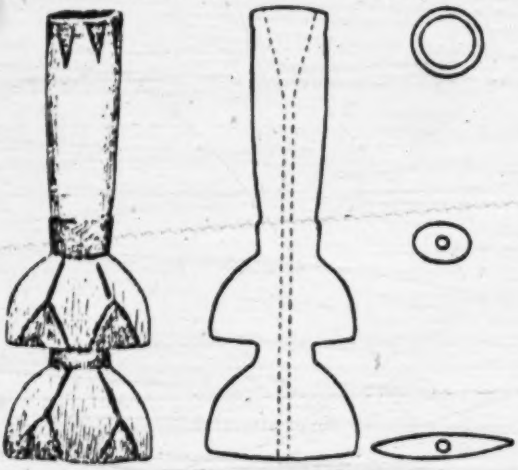

Fig. 160. Yellow wood. Ornament burned in. Riksm. 03. 3. 231.

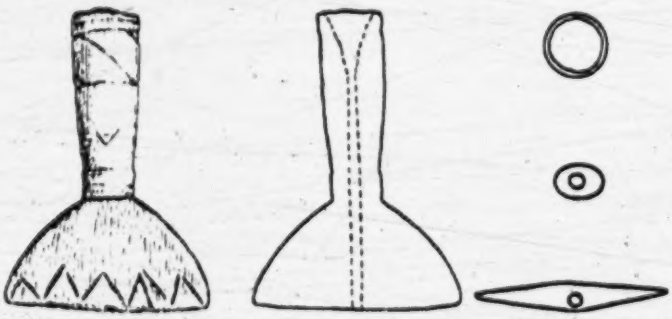

Fig. 161. Yellow wood. The ornament on the mouthpiece and a ring round the mouth of the bowl are burned in. The mark resembling an inverted letter A is carved. The lower ring on the bowl, and the lines that are obliquely issuing from it, are carved and painted red. 03. 3. 232.
Tobacco pipes of wood. Choroti. Gran Chaco. Bolivia. 2/3. Riksm.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

534 What has above been said concerning the construction and the way of blowing on ancient Peruvian, and Brazilian, flutes, applies in every particular to Choroti reed flutes of the type seen in fig. 162.

With whistles of the construction shown in fig. 163, different tones may naturally be produced by opening or closing the three round holes made

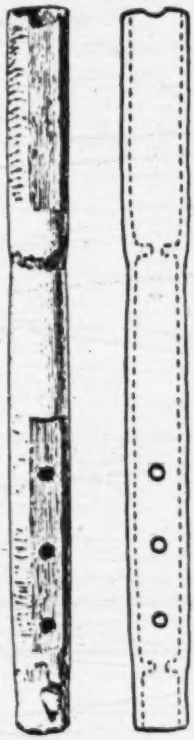

Fig. 162. Flute, of reed. Incised ornament. Choroti. Gran Chaco, Bolivia. 1/3. Riksm. 03. 3. 208.

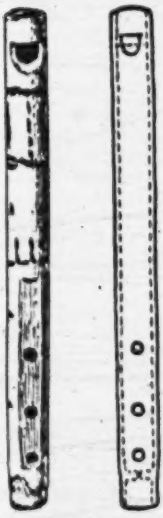

Fig. 163. Whistle, of reed. Ornament burned in. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 210.

Fig. 164. Whistle, of a bird bone. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 213.

through the side of the instrument at its lower end. At its upper end the opening is partly closed with wax. This particular whistle is blown in the same way as our ordinary whistles. Some closed Choroti reed whistles are only provided with one hole, usually semicircular, near the opening of the mouthpiece, and are thus without any holes by which different tones can be produced.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

534 and Yuracáre. Outside the Chaco, and the regions bordering on it, this type of whistle has not, so far, been found.[1] It is noteworthy that, generally speaking, these whistles have been given a similar, very characteristic, ornamentation. It is only such whistles as originate from the Yuracáre that form an exception from this rule.[2] The ornamentation, which is usually carved in the wood, in low relief, consists of a figure more or less
[531] resembling a cogwheel, with a wheel-cross in its centre (fig. 166). Such whistles as have a tin mounting are sometimes without the wheel-cross (see fig. 165).

789 This ornamentation is probably of some magical significance.[3] For the
534 fact is that these disc-shaped whistles are not only a combination of
531 ornament and musical
301 instrument, but they are also put to magical use. Karsten relates that the Choroti Indians, whilst performing their exorcismal dances, now and then blow their disc-shaped whistles to scare off evil spirits.[4]

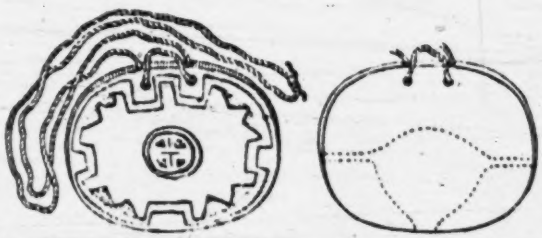

Fig. 166. Disc-shaped, wooden whistle, one side with carved ornament, the other side plain. Used like the whistle in fig. 165. Choroti. Gran Chaco, Bolivia. 1/1. Gothenburg Museum, D. 793. From Nordenskiöld (11), fig. 56.

In a monograph on whistles I have endeavoured to show that the practice of carrying ornamental whistles is of remote antiquity in America, and I think I have adduced very strong evidence of the so called »mesh-spacers» of antler or polished stone, that have been found in graves in North America, being, as a matter of fact, used as ornamental whistles, and possibly of a magical character.[5]

534 The disc-shaped Choroti whistles are blown at the lower aperture (see figs. 165 and 166), and with the same technique in blowing as described in connexion with the description of the flute in fig. 162. By the closing

[1] Nordenskiöld (11), pp. 188 and 180.

[2] Nordenskiöld (11), p. 188.

[3] Of the wheel-cross having been, and still being, also in America the characteristic symbol of the sun, we possess reliable proof. See e. g. Frobenius (1), fig. 298. Cf. also d'Alviella (1), pp. 76 and 77; and Holmes (1), plate XXXVIII.

[4] Karsten (1), pp. 34 and 35.

[5] von Rosen (8), p. 114 et seq. and Gustaver (1).

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

534 of magic, and on this matter he writes as follows: »These drums consist of a plain clay pot, which is partly filled with water and has a goat- or deerskin stretched over it. Here the water evidently serves no practical purpose. It may therefore be supposed that the idea was simply to strengthen the magic force that the drum gave out when beaten upon.»[1] Karsten's saying that the water in the pot could serve no practical purpose seems to me strange, as, by practical experiment, one can easily satisfy oneself that a Choroti drum partly filled with water gives out quite a different tone to what it does when quite empty. We also know that elsewhere similar means are employed for tuning drums as desired, for it is stated by Engel that the Chinese used to fill their »po-fu» or »ku» drums, wholly or partly, with rice husks, in order to give roundness and mellowness to the tone.[2]

[531]

Fig. 170. Magic rattle, of calabash with incised ornament. Carrying cord of red, woollen yarn. Choroti, Gran Chaco, Bolivia. 1/1. Riksm. 03. 3. 386.

Figure 170 shows a magic rattle consisting of the shell of a calabash, and containing a dark-blue, much worn, piece of glass and two kinds of almost spherical seeds, one of them being black and the other yellow. The latter have a diameter of 5 mm; they belong to a species of Smilax. Professor Fries has pointed out to me that the roots of Smilax species are officinal. It has not been possible to determine the black seeds; their diameter is 4 mm. In the handle is fixed a carrying cord of

[1] Karsten (3), p. 205: »Diese Trommeln bestehen aus einem einfachen Tontopfe, der zum Teil mit Wasser gefüllt und mit einer Ziegen- oder Hirschhaut bezogen ist. Das Wasser dient in diesem Falle zu keinem anscheinend praktischen Zwecke. Wir können daher annehmen, dass man einfach glaubte, die zauberische Kraft zu erhöhen, die dem Tontopfe anhaftete, und die von der Trommel ausstrahlte, wenn sie geschlagen wurde.»

[2] Engel (1), p. 41: »The po-fu used to be partly filled with a preparation made from the husk of rice, *in order to mellow the sound*.» Italics by von Rosen.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

172 Particulars of the objects in question are given in the table here below:

Objects painted all over with red paint, found by the author in ancient Indian graves at Casabindo, Puna de Jujuy, Argentina.

Riksm. coll. No.	Class of object	No. of fig. in von Rosen (10)	No. of page on which object is mentioned in von Rosen (10)
03. 3. 6797	Long handled spoon	—	38
03. 3. 6826	Pointed stick	53	37
03. 3. 6809	Distaff	—	31
03. 3. 6819	Small club (fish club?)	42	34
03. 3. 6833	» » » »	41	33
03. 3. 6830	Wooden knife	59	38
03. 3. 6871	Miniature bow	45	34
03. 3. 6873	Fragments of arrow shaft	-	35
03. 3. 6821	Mesh-spacer	39	32

304 751 On page 72 et seq., I have already described the manner in which the Choroti tattoo themselves, and also pointed out that this tattooing is of a magical character whilst at the same time this practice, like the painting of the face, is to a certain extent connected with the sexual life of the Indians. It is highly probable that not only the painting, but also the tattooing, of the face among the Choroti is done in order to prevent evil spirits from entering the body by way of eyes, nose, mouth and ears.[1] The arrow-like signs that sometimes are found as ornament done in tattooing or painting among the Chaco Indians (see for instance fig. 66), are, according to Karsten, in some way connected with the circumstance that the spirit of illness, called »mohsek ihitek» (i. e., the arrow-shooting mohsek) uses arrows for working harm upon people, for which reason arrows may be considered as amulets.[2] This, the Indians' way of looking at things, corresponds to the old saw: »like cures like», or »taking a hair from the dog that bit one».

531 751 Figures and ornamental signs, incised or burned-in, on calabashes for household use (figs. 127, 129—132) as well as on magic rattles of calabash (figs. 170 and 181), are, at least in certain cases, to be regarded as magical protective devices against evil spirits.[3] The significance of two figures, resembling human beings, carved on the magic rattle in fig. 181.

[1] Karsten (4), pp. 8 and 10.
[2] Karsten (4), pp. 190 and 191.
[3] Karsten (3), p. 179.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

I cannot tell, but from an analogous carving from the Lengua it is very probable that they represent spirits.[1]

Most rattles contain seeds, and in many of them are also found a large number of metal fragments (see synoptical table below). The latter as a rule consist of small, square pieces of tin plate, for the most part with a side of from 5 to 15 millimetres. Bits of glass do not unfrequently occur in the rattles, although never in any great numbers; generally only a few bits of glass are found in any one rattle. In the Chaco, bits of glass are naturally extremely rare. In the rattle reproduced in fig. 181 were only found bits of tin plate and one cactus spine. Although this rattle belongs to the handle hole type (see pp. 148, 149), it nevertheless has a hole in the bottom, with a plug of the kind I have described in connexion with the magic rattle, fig. 170. Professor Robert Fries has been kind enough to examine the different kinds of seeds that I have found in magic rattles, as well as in the bag mentioned below, and he then determined the presence of a species of Canna, a leguminous plant, a species of Convolvulaceæ, one of Sapotaceæ and a Smilax. Several kinds of seeds could not be identified from lack of material to compare them with.

Synoptic table of contents in magic rattles from the Choroti.

Riksm. coll. 03.3.

No. of rattle	Type of rattle	Contents
386	Plugged hole through bottom. Carrying cord (fig. 170).	Seeds (Smilax and undetermined), 1 dark blue piece of glass.
385	Ditto.	Seeds (Smilax and Canna), 2 bits of zinc plate, 1 spiral spring of iron, 2 cactus spines.
390	Plugged hole through top of handle, ditto through bottom. No carrying cord. (fig. 181)	Nine bits of plate iron, one cactus spine.
384	Like foregoing, but no hole at the bottom.	Seeds (Canna and undetermined), 2 bits of plate iron.
387	Ditto.	Seeds (Smilax, a leguminous plant, and of unknown species), 34 black glass beads, 1 blue glass bead and 4 yellowish-green bits of glass.
388	Ditto.	Seeds (Convolvulaceæ and unknown), 1 piece of zinc plate, and 1 uncoloured piece of glass.

From a Choroti I obtained by barter a small bag of red cloth (Riksm. 03. 3. 391), abundantly wound round with caraguatá string, in which he said he used to keep the things that he put into magic rattles.

[1] Grubb (1), p. 75, and fig. a on plate following p. 76.

778 This bag was found to contain a large number of seeds of many different kinds (fig. 182: 22—29); 39 quadrilateral pieces of plate iron (fig. 182: 12, 13, 16—18), 3 curiously shaped pieces of plate iron, about 25 mm in length (fig. 182: 15); 4 plate iron ferrules, or casings (fig. 182: 14; these were probably once mountings on leather fringes attached to a girdle of the type seen in fig. 31); 6 pieces of tin (fig. 182: 1—6); 1 turquoise-coloured glass bead (fig. 182: 20); 1 fragment of ditto (fig. 182: 21); 1 piece of uncoloured glass (fig. 182: 19); 4 blue pieces of glass (fig. 182: 30—33); and 4 green ditto (fig. 182: 7—11). Through friction against each other all these bits of glass have got their sharp edges worn off and their faces ground dull; in shape they now exactly resemble small quartz pebbles. I think it very probable that all the objects contained in this bag, or inside magic rattles, are attributed with magic power, and that, therefore, in the selection of them consideration must have been given not only to their capabilities as sound-producers, but also to their supposed magic properties.[1]

[531]

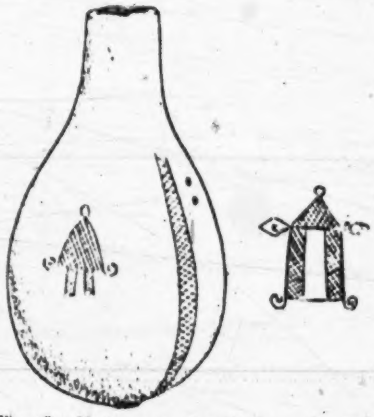

Fig. 181. Magic rattle of calabash, carved with figures probably of magic significance. Choroti. Gran Chaco, Bolivia. 1/2. Riksm. 03. 3. 390.

000 Many investigators have established the fact that primitive peoples' ornaments are very often of a magic character. Among certain tribes practically all ornaments may be looked upon as being more or less potent amulets. In my book, »Tråskfolket» (»The Batwa of Lake Bangweolo»), I have shown that among the tribes around Lake Bangweolo the belief is very widely spread that many ornaments, such as necklaces, bracelets, glass beads, etc., possess magic properties, and that they are able to give protection, not only against divers illnesses, but also against other evil-things, such as wild animals, etc.[2]

That the same conception is prevalent among the Indians of South America has been set forth by many students, among whom, von den

[1] Cf. Karsten (4), pp. 143—144.
[2] von Rosen (1), pp. 160, 301—305, 351, 352 and 423.

[text continues on p. 173]

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

that the Indians prefer to use them for barter rather than as an article of clothing. Woven cloaks have, moreover, displaced fur cloaks. Characteristically it is exclusively the conservative women in the Chaco who wear the fur cloak.

Fur cloaks are worn in the Chaco with the fur inside. The plain side of the skin is generally painted. Each skin is painted separately, and then a number are sewn together.

The Tehuelche also wear their cloaks with the fur inside. The Ona, however, wear them with the fur outside, and this tribe leaves the plain side unpainted.

I have seen these cloaks among the (6) Mataco, (2) Ashluslay and (7) Toba, where they are usually made of coypou skin, rarely of sheep or fox-skin. DOBRIZHOFFER[1]) mention them from the (17) Abipone, DUCCI[2]) from the (9) Toba, SANCHEZ LABRADOR[3]) from the (12) Mbayá, SCHMIDEL[4]) from the (3V) Querandi, HAWTREY[5]) and GRUBB[6]) from the (8) Lengua, STADEN[7]) from the southern (38) Tupinambá, ARAÚJO[8]) following PERNETTY from the (44) Charrúa, SEPP[9]) from the (64) Yaro-Chaná, FALKNER, MUSTERS, PIGAFETTA[10]) and others from the (26) Patagonians, GALLARDO, COLAZZI, OTTO NORDENSKJÖLD and others from the (27) Ona, SKOTTSBERG[11]), MEDINA[12]), HYADES and DENIKER[13]) and other from the (XV) Yahgan, the (2V) Chono and the (1V) West Patagonians.

[531]

1) Vol. 2, p. 132.
2) p. 10.
3) Vol. 1, p. 280.
4) p. 150.
5) p. 282.
6) p. 62.
7) Vol. 2 (p. 3).
8) p. 120.
9) p. 50.
10) p. 12—13.
11) p. 207.
12) pp. 106—107.
13) p. 317.

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A
C
534

whistles of this kind, though less frequently, among the (6) Mataco[1]). I have also seen them among the (4) Chiriguano, (5) Chané, (3) Tapiete, (23) Churápa and (22) Yuracáre. GRUBB[2])

C
[534
533]

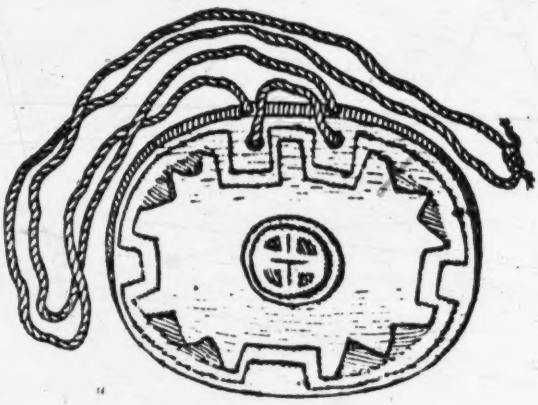

Fig. 50 a. Wooden whistle. Choroti G. M. (D. 793) 1/1.

mentions them from the (8) Lengua and Campana[3]) from the (9) Toba. This type of whistle, therefore, occurs within a continuous area along the Andes and in the Chaco. (Map

C
[534]

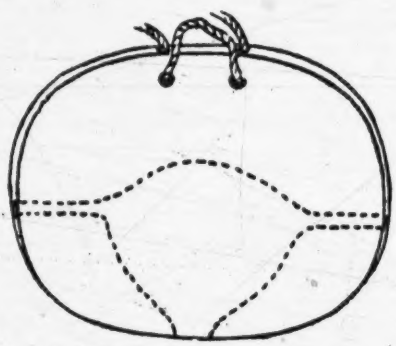

Fig. 50 b. Section of the same.

[1]) R. M. (03. 3. 500).
[2]) p. 75.
[3]) (2), p. 410, fig. 10 b.

2: Nordenskiöld E-5 (1908-1909)1919
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Ashluslay SK5

Valle del Rio Chubut[1]), in the (O) Rio Parana[2]), in the (N) upper Rio Parana[3]), in all the old Inca country[4]), also in Ecuador[5]), in S. Chili[6]), in Cundinamarca[7]), and Cauca[8]), and at Sta. Marta in Columbia[9]), on (P) Aruba island[10]) on the (S) island of Trinidad[11]) and at (R) Lago Tacarigua[12]).

Besides the above mentioned tribes we find, among present-day Indians earthen vessels provided with handles among the tribes of (48) N. W. Brazil[13]), the (54) Guahibo[14]), the Köggaba[15]) Motilones[16]) Goajiro[17]), the Arawaks[18]) on the coast of Guiana, the Araucanians[19]) and the (8) Lengua[20]).

In addition there are some tribes who have quite lost their primary civilization, e. g. the Mojo. The pottery in the archeological excavations at Mojos is, as already mentioned, without handles.

A C 323 531

When ornamenting their earthen vessels the Choroti and Ashluslay never paint them before burning, but the latter sometimes do so afterwards. On some vessels there is plain

1) Outes y Bruch (5), fig. 115.
2) Torres (2), p. 88.
3) Mayntzhusen, p. 466. (rare).
4) Uhle, Seler, Reiss u. Stübel, and other works.
5) Uhle, do.
6) Photo. G. M.
7) Uhle (1), Pl.
8) Uhle (1), Pl.
9) G. M. Bolinder's collection.
10) Josselin de Jong, Pl. 21, 13, 14 15, etc.
11) De Booy, Plate 5 a.
12) Marcano, p. 55. Pl. 12, Fig. 39. p. 57, Pl. 15. (Handle small and rare).
13) Koch-Grünberg (3), Vol. 2, p. 224.
14) Stradelli, p. 31.
15) Bolinder (4), p. 130.
16) Bolinder (2), p. 39.
17) Candelier, p. 267.
18) Ten Kate, p. 107 «Waar men aan kruiken, kommen enz. hengsels of ooren vindt, moet men aan Europeesch namaaksel denken.»
19) Latcham (1), p. 310.
20) Grubb, Pl. p. 74.

[Text continues on p. 217]

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

ornamention executed by means of the wooden tools used for polishing. Among the Choroti and Ashluslay I have seen no clear finger-print ornamentation. On the other hand this is not uncommon among the Mataco-Vejos, the Mataco who dwell in immediate contact with the Chané, who often embellish their pottery with such ornaments.

On the Choroti vessels and still more frequently on those of the Mataco the clay-coils themselves are sometimes retained as ornaments.

The distribution of finger-print ornamention (Map 40 Fig. 66) differs altogether from that of the handle. While the handle is an element of civilization which evidently came to the Chaco from the mountain civilization, finger-print ornamentation came from the east, probably from the Guarani Indians.

I have indicated in the table the tribes among whom I have seen this kind of ornamentation. In my archaeological excavations I have found[1]) such ornamentation at (ö) Tarupayu near the upper Rio Pilcomayo; at (o) Incahuasi between the Rio Parapiti and the Rio Grande in S. Bolivia, and in the province of (e) Sara not far from Sta. Cruz de la Sierra.

Ameghino[2]) mentions this ornamentation from the province of (H) Buenos-Aires, Outes[3]) from (p) San Blas, not far from Bahia Blanca in Argentina.

Meyer[4]) from (q) Laguna in Sta. Catharina in S. Brazil, Torres[5]) from (r) Entre Rios, Kunert[6]) from (S) Rio Grande do Sul (Region de Cahy and Forromecco), and Grubb[7]) from (f) the country of the Lengua Indians.

[1]) Nordenskiold (10), Figs 19—22.
[2]) Vol. I Pages 280—291, Pl. 6.
[3]) (4), p. 267, fig. 35.
[4]) P. 340.
[5]) (1), fig. 3.
[6]) P. 33.
[7]) Grubb, p. 73. »Broken pieces of old pottery have been found bearing scorings, as if made by the pressure of the thumb, and are said to be the work of spirits.«

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

Ornamentation of this kind is found, too, on earthen vessels from (N) Alto Parana[1]), the vicinity of Bompland, Missiones in N. Argentina[2]). KISSENBERTH's[3]) discovery of this form of ornamentation on potsherds which he found near the Dominican mission (g) of Conceiçao do Araguaya is extremely interesting. They are probably relics of the migration of the Tapirapé Indians. These Indians are Guarani and were possibly driven from the coast to their present district owing to the slave raids of the Portuguese.

Occasionally pottery is found in other parts of S. America sporadically with fingerprint ornamentation on the rim of the vessel. Typical finger-print ornamentation, however, is only found in the parts indicated on the map.

The Ashluslay do not paint their pottery before but after burning. This may be due to their not having in their country the colouring materials requisite for painting before burning. I have not got painted pottery from the Choroti.

For colouring, the (2) Ashluslay use the resin of a tree, «palo santo».[4]) Besides these Indians and other nearly related Chaco tribes, the (7) Toba, (3) Tapiete, (8) Lengua[5]), (12) Mbayá[6]) and (11) Chamacoco[7]), I have only seen the (5) Chané use similar resin for the painting of their pottery, which painting, however, is done before burning. The latter sometimes resin the rim of a vessel after the burning, while it is still warm. There are very considerable areas of S. America where the art of painting pottery has not been understood, and is not understood to-day. In the first place the art was known to the tribes on the Andes (the shaded area on the map) as well as the Guarani tribes and the major-

[1]) KUNIKE, p. 158, fig. 96.
[2]) G. M. BACKMAN's collection.
[3]) (2), p. 77, fig. 26.
[4]) Bulnesia Sarmienti.
[5]) GRUBB, p. 73.
[6]) COLINI, p. 313.
[7]) K. v. d STEINEN (4), p. 325.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

the Mbayá:— «Labran una especie de calabazos grandes sacandoles con delicadeza un pedazo por el pezon que despues ajusta como tapa», — e. g. *the lid and the calabash-box are always from one and the same fruit.*

The calabashes are frequently ornamented, sometimes by burning, sometimes by cutting. Should a large calabash crack, the Choroti and Ashluslay generally mend it by sewing together the edges. (See Fig. 68).

Calabashes with lids of this kind (Fig. 67) are found among the (18) Quichua[1]), (4) Chiriguano[2]), (6) Matacos[3]).

(X 4) Payaguá[4]), (12) Mbayá[5]), Kadiuéo), (8) Lengua[6]), (8) Angaité[7]), (21) Cainguá[8]), and (36) Ijca[9]) as well as the (2) Ashluslay and (1) Choroti.

Furthermore, calabashes with similar lids (Map 42) are mentioned from excavations in (D) ? the Puna de Jujuy[10]), from (A) the coast of Peru[11]), from (γ) the neighbourhood of Cuzco[12]), and from (G) Capamitas in the borderland of Peru and Bolivia[13]). We see that the distribution in S. America of lids of the kind here described is in the west Plainly we have to do with a cultural element which the Chaco Indians have derived from the western area of civilization

Calabashes with lids of a rather different type are mentioned by KRAUSE from the (15) Kayapó[14]), by Kissenberth[15])

1) G. M. 15. 1. 87.
2) G. M. 15. 1. 144.
3) R. M. (M. 1251).
4) M. C. (He. 316, H. 322 a. H. 023.)
5) BOGGIANI (2), Fig. 50.
6) GRUBB, p. 74.
7) M. f. V. C. (17034, Collection FRIČ.)
8) M. f. V. C. (613 i).
9) G. M. BOLINDER.
10) LEHMANN-NITSCHE (1), Pl. 3, Fig. 4.
11) REISS und STÜBEL, Vol. 3, P. 82, fig. 4.
12) M. f. V. B. (V. A. 8900).
13) NORDENSKIÖLD, (3), S. 24. R. M. (06. I. 408.)
14) Fig. 215.
15) (1), fig. 1.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

from the (5X) Canella, and KOCH-GRÜNBERG[13]) from the (48) Yahúna, Rio Apaporis.

A C [415 53] Calabashes with encaustic ornamentation (Map 43) are rare among the Ashluslay, somewhat more common among the Choroti, and very common among the Mataco. They are found among the Toba and, very generally, among the Chiriguano and Chané. They are quite wanting in the tribes I visited in N.E. Bolivia and the adjacent country, although some of these tribes, e. g. the Guarayú (Pauserna) have got richly ornamented calabashes.

Calabashes with encaustic ornamentation are also known from the (14) Bororó[2]), (20) Paressi-Kabíšĭ[3]), (28) Bakaïrí[4]) and other tribes on the upper Rio Xingú, (13) Karajá and (50) Šavajé[5]) (21) Cainguá[6]), (29) Caingáng[7]), (41) Šokleng[8]), the Indians of (09) Chachapoya[9]), Peru, (47) Arecuna[10]), (47) Makusi and Wapischana[11]), the Indians on the Rio Pichis, Rio Ucayali[12]) (33) Campa[13]), (48) Tariana[14]), and (48) Arapaso[15]) (on the Cairáy Uaupés).

In Peru, Argentina and Chile calabashes graven by fire have been frequently discovered, e. g. at (13) Arica[16]), (A)

[1]) (2), Vol. 2, fig. 107.
[2]) M. f. V. C. (17069). FRIČ Collection.
[3]) MAX SCHMIDT (4), p. 223.
[4]) MAX SCHMIDT (3), fig. 227-230.
[5]) KRAUSE, p. 280; M. f. V. L.
[6]) M. C. (IIc. 054).
[7]) M. C. (IIc. 042).
[8]) M. f. V. B. (V. B. 4172).
[9]) UHLE (1), Vol. 2, Pl. 4, fig. 11.
[10]) M. f. V. B. (V. A. 61234).
[11]) M. f. V. H. (11, 17:57-58; 11, 17:29).
[12]) M. f. V. B. (V. A. 10882). **(not marked on the map).**
[13]) M. f. V. B. (V. A. 10883).
[14]) M. f. V. B. (V. B. 0500).
[15]) M. f. V. B. (V. B. 5935).
[16]) UHLE (1), Vol. 1. Pl. 25, fig. 19.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

Ancon [1]), (K) Trujillo [2]), (y) Cuzco (Paucartambo [3]), (G) Quiaca [4]), (C) Calama [5]), (E) La Paya [6]) and in (F) San Juan [7]).

In some parts the Indians may have learnt the encaustic ornamentation of calabashes from whites and negroes. It is evident, however, that this kind of ornamentation *mainly occurs in the west of S. America*, and I deem it in the highest degree probable that the Chaco Indians took over the art of pyrograving from the western area of culture.

The question arises whether this process of ornamentation did not originate in a district where the people had at their disposal metal implements by means of which figures might easily be burnt into wood or similar material.

Among the Choroti and Ashluslay in the Chaco pyrograving is performed on whistles and cases, as well as on reed flutes.

Calabashes with engraved ornamentation are distributed over a very wide area. I will only mention here the tribes among whom I have myself seen them:- viz. the Choroti, Ashluslay, Mataco, Toba, Tapiete, Tsirakua, Chiriguano, Chané, Churápa, and Vuracáre.

The calabashes of the Choroti and Ashluslay Indians are never painted, nor are they blackened inside, like the calabashes of the Guarayú and many other tribes.

As regards the ornamentation itself, I do not venture to assign any particular quarter as its source. It may possibly be an imitation of the ornaments on the calabashes of more civilized tribes. I am not able, however, to adduce any proof of this.

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[1]) Reiss und Stübel, Vol. 3, Pl. 82.
[2]) M. C. (O. D. I. c. 249).
[3]) M. f. V. B. (V. A. 8000)
[4]) Nordenskiold (3), p. 29, R. M. (00. 1. 434).
[5]) Uhle (5), p. 109.
[6]) Ambrosetti (6), p. 543.
[7]) Debenedetti (4), p. 64, fig. 35.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

around the forehead in the same manner as when other heavy burdens are carried. While being carried the pitcher hangs on the back. No other Indians in S. America, except the Quichua (Fig. 44)[1]) and possibly the Aymara, carry their pitchers in this manner on a cord passing through the two ears of the vessel. It reminds one not a little of the method prevailing among the Incas of carrying the »Aryballes» (see Fig. 43) so characteristic of the Inca period, and it ap-

Fig. 46. Clay doll. Indian woman with bearingband. Choroti. R. M. (D. 340) 2/3. A = tattooing.

pears to me by no means improbable that the water-pitcher now used in the Chaco is a development of the aforementioned Incan type on which was also carried a rope. It is evident that the idea of carrying earthenware vessels on a rope, as well as the ears of the vessels (see page 212) is derived from the Western area of civilization. »Aryballes» are found in North Chile, in N. W. Argentine, on the Bolivian tableland, in the mountains and on the coast of Peru, and in the mountains and on the south coast of Ecuador. This type of vessel is considered by BOMAN and UHLE, no doubt

[1]) WIENER, p. 128.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

I never heard the Choroti sing or play any real melody; as I have already pointed out, the musical sense of these Indians appears to be exceedingly rudimentary. But when they are beating their magic drums (fig. 167), or using their magic rattles (fig. 170), one perceives that they are by no means lacking in a sense of rythm. 533

The drums as well as the rattles are of a magical character; both are principally used at incantations and magic dances. 534 [789]

The magic drum consists of an earthenware vessel which is partly filled with water, and covered over with a piece of skin. The skin is tied round the mouth of the vessel with a string of caraguatá (fig. 167). A single drumstick is always used. Drumsticks are of wood, and usually carved; sometimes they have metal mountings (figs. 168 and 169). When the drum is to be used, it is usually stood on a ring of straw which is placed on the ground.

Fig. 168. Drumstick, of wood, with a small tin-plate mounting. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 304.

Drums consisting of clay pots with skin stretched over them have also been in use in North America. According to some early authors, such drums were not beaten with the bare hand, but with a drumstick: thus they were in this respect handled in the same manner as by the Choroti.[1] As to whether the North American drums were also partly filled with water, I am not able to say, as in the literature I have found no information on that point.

Fig. 169. Drumstick, of wood with ring shaped tin mountings. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3 308.

In a previous work I have endeavoured to show that, among the Choroti, water was put into the drums for the purpose of tuning them to the pitch that was wanted.[2] This detail of information, which I had from the Choroti themselves, is in all probability correct. Karsten, however, offers a different explanation. He is of opinion that the water is poured into the clay-pot drums exclusively for reasons

[1] See for example Holmes (1), p. 34 and fig. 4.
[2] von Rosen (2), p. 12.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

535 centres on them. It is for them that they paint and deck themselves out.
302 At these balls the young Indian tries to appear as elegantly apparelled, as originally painted and decorated, as possible. Each day he paints himself after a different fashion, and arranges his ornaments differently. — These gentry, upon growing into older, staid, married men, no longer adorn themselves for ball parties, but only for war. — As to the Choroti girls, I have often seen them anointing their bodies with fish oil, which imparts to then an unpleasant smell. Their own opinion on this point is
[832] no doubt a very different one. To their thinking, we Europeans have an offensive cow smell. The level of elegance affected by the men is never
535 attained by the women. Still, they are, however, able to make the consoling reflection that it is, anyhow, in the first place for their sake that the lords of creation spend several hours of the day on their toilet.

»As has been said, it is in dancing that the whole interest of the young men and the young women centres. When the sun has set, then it begins. In a circle, or in a single rank, the men dance, marking the time by singing, may be: 'Tãe-a sa-lé, tãe-a-sa lé'. As the rhythm of the singing is slow or quick, so is the dancing. Music is a thing unknown at these
[533] dances. The chants that are sung are untranslateable refrains, which often are international, i. e., are used by many different tribes. The girls dance behind the men. Among the Choroti Indians it is the girl who takes the
[832] initiative in the matter of amatory ventures. She simply carries off with her, from the ball, any particular young man whom she may want as her lover for the night. These dances made a grand spectacle, as the moon, or a bonfire of pampas grass, shone on the gleaming bodies, I have seen as many as a hundred men form a dancing circle. At times the dance went quite slowly; at times it would go at a breakneck speed, raising clouds of dust, so that all one could see was a whirling melée of bodies and waving ostrich plumes.«

535 Of the dances of the Chaco Indians,[1] those that are obviously magical
789 are mainly performed as ceremonies of exorcism against dreaded spirits who have it in their power to cause illness or death; according to Karsten, magié dances are also resorted to in order to enhance the supply of wild, edible fruits.[2]

[1] Extract from Nordenskiöld (13), pp. 73, 75—77, and 79.
[2] Karsten (1).
[3] Karsten (4), pp. 25–28.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

of older origin that conception of things supernatural, wherefore it follows 000
that purely decorative art must be older that magic art.

In the course of time, ornaments have, from a variety of reasons, become attributed with magical properties, *without having, on that account, necessarily lost their character of being ornaments.*[1] At a still later stage it happens that the supernatural properties that once were ascribed to the objects are considered unimportant, and therefore by degrees fall into oblivion. Probably the Choroti will soon arrive at this stage of development in respect of their ornamental objects, and thus Karsten has rendered a very important service to science by having »fixed», so to speak, this stage of the evolution of Choroti culture, even if he, as is my opinion, at times overshoots the mark by giving undue prominence to the magic side of the question.

Singing, dancing, drum-beating and rattle-shaking are by the Choroti 789
regarded as potent in incantation and exorcism. This is a well known 533
fact, to which I have also referred on pp. 182, 183 in my account of a funeral dance which took place in a Choroti village.[2] That blowing a kind of disc shaped whistle is done for the purpose of driving away evil spirits I have already mentioned (p. 144). As regards the supposed magical character of a game of chance called »chuke», I also beg to refer to what I have said in the foregoing (see p. 155).

A popular belief, which is to be met with practically all over the world, 826
is that the mental and physical force in man is in some supernatural way centred in the hair of his head. As an instance of this, Karsten refers back to the well known legend about Samson, the hero who lost his strength as soon as Delilah had shorn him of his hair. Among us Northeners, as among other European peoples, the belief has also existed

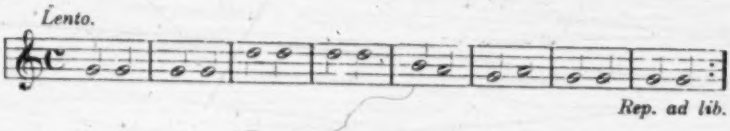
[1] It is, inter alia, from Stolpe's works — e. g. Stolpe (1) — a well known fact that these cmingly purely geometrical ornaments of primitive peoples often can be traced to symbolic pictography. But »symbolic pictures may, in their turn, have been developed out of geometrical designs. »Von den Steinen is now of opinion that a whole group of so called geometrical ornaments have evolved from textile designs, but that they, in being transposed from plaited or woven work to other materials, and carried out in engraving or painting, then embarked upon an independent existence, finally carrying with them a whole series of the most varied pictorial ideas, according to the requirements of the artist's inspiration, and that these latter creations had no essential connexion with the original geometrical designs.» The passage within the quotation marks is a summary made by Seler of von den Steinen's opinion as regards certain ornaments. Seler (1), p. 48.

[2] Cf. also Karsten (4), p. 152 (1), pp. 14, 33 and 34 (2), bottom picture in plate following p. 32, and Nordenskiöld (13), pp. 89—91, and 105.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

Kausima dance is always obligatory. Thus in a case which came under my notice the dance was performed by a middle-aged woman who, holding the dancing-staff (*káhuis*) in her right hand, proceeded with slow regular steps backwards and forwards in front of the house, where the girl, in whose »honour» the dance was performed, was sitting motionless. The woman accompanied her dance with a peculiar monotonous chant marking time, as usual, with the *káhuis*. Sometimes one of the small girls went and joined her, holding the dancing-staff together with her and walking in the same time. The dance and chant was begun at sunset and continued with short intervals till midnight. The melody of the chant which was repeated over and over again, was the following:



It is evident that the object of the dance was to drive away or keep off the evil *möhsek* who were trying to harm the girl.

Exactly the same custom prevails among the neighbours of the Choroti in the south, the Ashluslay Indians, who in their culture are so closely related to the Choroti. The fact that the rattling dancing-staffs form a magical instrument peculiar to the Chaco tribes, may also be inferred from the puberty ceremonies in vogue among the *Lenguas* of Paraguay. These ceremonies are shortly described by Mr. Barbrooke Grubb, but since he gives no explanation of their significance I may mention them in this connection, with more reason since the Lenguas are culturally closely related to the Indians of the Mataco-Choroti group. The main dance is, as among the Choroti, performed by the women who circle round the girl to be initiated, chanting and marking time with their rattle staffs. A troop of lads, dressed in ostrich plumes and wearing masks to represent evil spirits, issue from the forest, running one behind the other in a serpentine formation, move in and out among the crowd, jingling bunches of hoofs and from time to time uttering prolonged shrill cries. At their near approach the women dance and chant with increasing vigour round the girl pretending to protect her and to drive off the masked »spirits» [1]). The idea just indicated by me with regard to the Choroti, namely, that the young woman will, through the initiation, become permanently har-

[1]) Grubb, *op. cit.* p. 178.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

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I have so far only spoken of the dances and other rites which take place at the preparation of the sacred drinks. During the algaroba season festivals are held almost continuously, and these festivals are chiefly celebrated with drinking-bouts and dancing. Those of the Chaco Indians who have been in contact with the whites and seen the great festival with which, in Argentine and Boliva, they celebrate their carnival in February say that the algaroba season is their own carnival time and that they, too, have their carnival dances. The dances which among the Choroti take place at that time have partly been described before in connection with the customs practised by these Indians at courtship and marriage. In addition to the customary courtship dance *Avúshe*, the great festival, which is called *lākinene*, is celebrated with two more dances, those called *Ahlénta* and *Jóhlōki*. *Jóhlōki* is the name by which the Choroti call the Tobas, a fact that seems to indicate that the Choroti have borrowed the dance from their neighbours. The Tobas themselves call the dance *Nahotti*. It is a ring-dance; the dancing men are arranged in a circle and have their arms round each other's waists, moving round to the right or to the left to the rhythm of a chant. The *Ahlénta* again is identical with the Toba dance *Nomi*. Nevertheless, the Choroti seem to have borrowed it from their southern neighbours, the Ashluslay Indians on the lower Pilcomayo, a fact that may be inferred from the name; for just as *Jóhlōki* means »the Toba dance», so *Ahlénta* means »the Ashluslay dance» (Choroti *Ahle* = Ashluslay). I would add in this connection that the dances of the Chaco tribes are, in the main, common to all the tribes; there are certain dances which occur among different tribes under different names.

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The chants sung at the dances are rather monotonous and are composed of a series of words which apparently have no meaning; for instance in the *Jóhlōki*:

Hä-e-sa-alia,
Hiáh-hia-ália,
He-éh-hia-ália, hia-ália,
Hi-áh,
Hä-he-éh, hä-he-éh,
Hä-se-éh, hä-se-éh, hä-se-éh, etc.

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Only the younger unmarried men perform these dances, the older ones being constantly engaged in drinking algaroba beer (*atäs*). Unmarried girls are allowed to be present, but as we have seen they do not as a rule

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

276 517 smokes his pipe alone, but lets it pass, by turns, from mouth to mouth. Similarly to other primitive peoples, the Choroti not only take the smoke into their mouths, but also inhale it into their lungs, a method of smoking which apparently gives them great satisfaction.

534 The Choroti are only indifferently gifted for music, and their musical instruments are exceedingly primitive. These consist of flutes and whistles of bone, whistles made from skulls, disc-shaped whistles made of

[276 531]

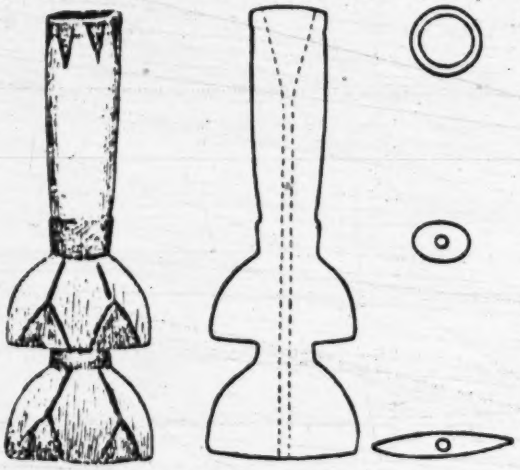

Fig. 160. Yellow wood. Ornament burned in. Riksm. 03. 3. 231.

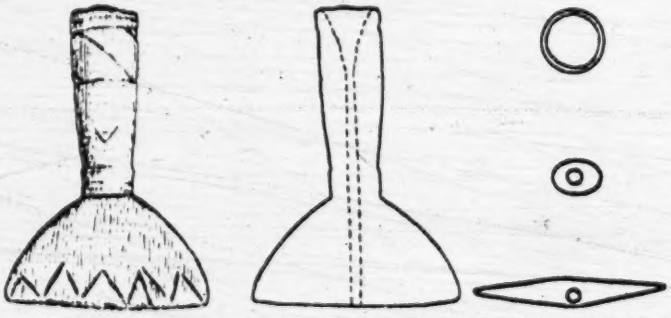

Fig. 161. Yellow wood. The ornament on the mouthpiece and a ring round the mouth of the bowl are burned in. The mark resembling an inverted letter A is carved. The lower ring on the bowl, and the lines that are obliquely issuing from it, are carved and painted red. 03. 3. 232.

Tobacco pipes of wood. Choroti. Gran Chaco. Bolivia. 2/3. Riksm.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

wood, music bows, drums, rattles made of calabash, and dancing rattles consisting of animal hoofs. Latterly the Choroti have also taken up the use of a kind of cow-horn' trumpet with a mouthpiece of reed. 534

The reed flutes bear a great resemblance to the ancient Peruvian flutes, although the latter as a rule are of bone. Like most Choroti flutes, the one depicted in fig. 162 has a notch cut in the edge at the opening of the mouthpiece. This detail is also found on many ancient Peruvian flutes.[1] [171]

Mead writes of the latter that they consist of one-piece tubes of reed or bone, open at both ends, and that they belong to the kind of flutes that are called 'end-blown'. They are blown at the end where the notch has been cut, with the lower lip against the part of the edge which is diametrically opposite the notch. According to Mead, the notes are produced by the air current, in blowing, passing across the mouthpiece opening and striking the sharply cut, opposite, edge of the flute-mouth (i. e., at the notch); this sets up vibrations in the air column within the tube. It is well known that the note which is given off by a flute depends upon the length of the vibrating air column within the flute. For varying the length of the air column, the ancient Peruvian flutes are provided with holes, from three to seven in number. All attempts at discovering any system relating to the distances between these holes have failed. One is reduced to supposing that the flutemakers among the ancient Peruvians placed the holes in a more or less arbitrary way. The fact of the tones producible on flutes of this kind generally not forming any correct scale, is not to be wondered at when one considers the difficulties a modern maker of flutes has to overcome in order to produce a perfect flute.[2]

Open-ended bone flutes of the same kind as the ancient Peruvian ones, are known from, among other tribes, present-day Brazilian Indians dwelling on the banks of Rio Tiquié and Rio Caiarý-Uaupés. About these instruments Koch-Grünberg writes that: 'at the upper edge of the mouthpiece a square or semicircular notch has been cut out. The flute is pressed against the lower lip, and one blows obliquely into its mouth. These flutes have three, or, more seldom, four, finger holes.'[3] [171]

[1] E. g., Engel (1), fig. 18, a, b, c, and Mead (1), the fig. on p. 14, and also plate V, figs. 1, 2, 3, 7, 8, 9, 13, 15, 21, 22, 23.

[2] Mead (1), p. 14 et seq.

[3] Koch-Grünberg (3), p. 193

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

534 What has above been said concerning the construction and the way of blowing on ancient Peruvian, and Brazilian, flutes, applies in every particular to Choroti reed flutes of the type seen in fig. 162.

With whistles of the construction shown in fig. 163, different tones may naturally be produced by opening or closing the three round holes made

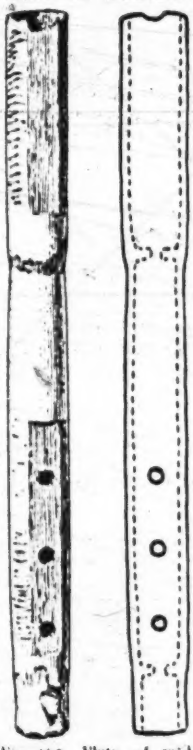

Fig. 162. Flute, of reed. Incised ornament. Choroti, Gran Chaco, Bolivia. 2/3. Riksm. 03. 3. 208.

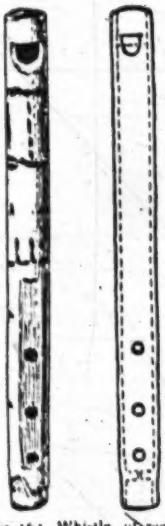

Fig. 163. Whistle, of reed. Ornament burned in. Choroti, Gran Chaco, Bolivia. 2/3. Riksm. 03. 3. 210.

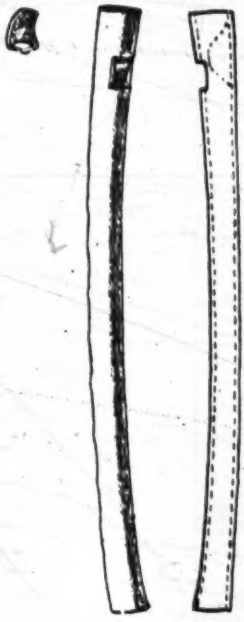

Fig. 164. Whistle, of a bird bone. Choroti, Gran Chaco, Bolivia. 2/3. Riksm. 03. 3. 213.

through the side of the instrument at its lower end. At its upper end the opening is partly closed with wax. This particular whistle is blown in the same way as our ordinary whistles. Some closed Choroti reed whistles are only provided with one hole, usually semicircular, near the opening of the mouthpiece, and are thus without any holes by which different tones can be produced.

534

In previous works on the Indians of the Chaco, there is to my knowledge nothing said about the Choroti possessing whistles made of bone. These Indians do, however, use such whistles, which are made of bird bones (fig. 164). These whistles are open at both ends, so that two notes can be produced; if one closes the lower end of the whistle with the finger, one naturally obtains a note differing from the one given by the open whistle. In the bone whistles, the blowing end is partly stopped up with wax.

Fig. 165 shows a remarkable type of whistle, which is very common in the Chaco. This whistle consists of an oval, flat piece of wood, bored through in the way seen from the figure. On one side it has a sheeting of tin, which originally had a serrated edge all round, like a cog-wheel. Most of the teeth are, however, worn away, but on the left half of the mounting the serrations are almost intact. The mounting is set on the wood by means of some waxy substance. The reverse side of the disc is without any mounting or other ornamentation. For carrying this whistle there is a plaited cord of red, woollen-yarn, which is decorated with a few snail-shell spangles. The object in question is evidently very old, as one of the holes which originally served for fastening the carrying cord has become useless through the cord having worn through the wood, which is of very great hardness, in the way seen from the figure. A new hole for the cord has therefore had to be bored. Oval whistles of this kind, ornamented on one side, are worn as breast ornaments by most Choroti, and are also found among the Ashluslay, Chané, Chiriguano, Churápa, Lengua, Mataco, Tapiete, Toba and Yuracáre. [17L 301]

Fig. 165. Disc-shaped, wooden whistle; on one side mounted with a piece of tin, the other side unmounted. On the figure, the dotted lines mark the boring. This object is meant to be worn as a breast ornament string round the neck. The carrying string consists of red, woollen yarn, and is decorated with a few snail shell spangles. Choroti. Gran Chaco, Bolivia. 1/1. Riksm. 03. 3. 214.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

534 and Yuracáre. Outside the Chaco, and the regions bordering on it, this type of whistle has not, so far, been found.[1] It is noteworthy that, generally speaking, these whistles have been given a similar, very characteristic, ornamentation. It is only such whistles as originate from the Yuracáre that form an exception from this rule.[2] The ornamentation, which is usually carved in the wood, in low relief, consists of a figure more or less [531] resembling a cogwheel, with a wheel-cross in its centre (fig. 166). Such whistles as have a tin mounting are sometimes without the wheel-cross (see fig. 165).

789 This ornamentation is probably of some magical significance.[3] For the 534 fact is that these disc-shaped whistles are not only a combination of 531 ornament and musical 301 instrument, but they are also put to magical use. Karsten relates that the Choroti Indians, whilst performing their exorcismal dances, now and then blow their disc-shaped whistles to scare off evil spirits.[4]

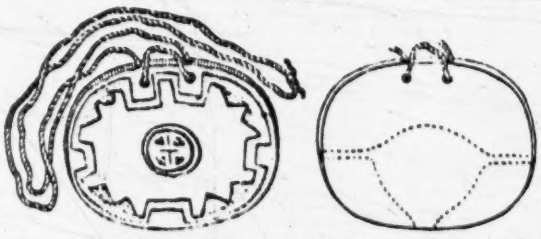

Fig. 166. Disc-shaped, wooden whistle, one side with carved ornaments, the other side plain. Used like the whistle in fig. 165. Choroti. Gran Chaco, Bolivia. ⅓. Gothenburg Museum. D. 793. From Nordenskiöld (11), fig. 56.

In a monograph on whistles I have endeavoured to show that the practice of carrying ornamental whistles is of remote antiquity in America, and I think I have adduced very strong evidence of the so called »mesh-spacers» of antler or polished stone, that have been found in graves in North America, being, as a matter of fact, used as ornamental whistles, and possibly of a magical character.[5]

534 The disc-shaped Choroti whistles are blown at the lower aperture (see figs. 165 and 166), and with the same technique in blowing as described in connexion with the description of the flute in fig. 162. By the closing

[1] Nordenskiöld (11), pp. 188 and 189.

[2] Nordenskiöld (11), p. 188.

[3] Of the wheel-cross having been, and still being, also in America the characteristic symbol of the sun, we possess reliable proof. See e. g. Frobenius (1), fig. 298. Cf. also d'Alviella (1), pp. 76 and 77; and Holmes (1), plate XXXVIII.

[4] Karsten (1), pp. 34 and 35.

[5] von Rosen (8), p. 114 et seq. and Gustaver (1).

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

of one, or both, holes which are at the side edges of the disc whistle, different tones are obtained, and if both the side holes are open, the whistle renders a third note. 534

A primitive type of whistle found among the Choroti, one which I have not myself seen, consists according to Nordenskiöld of the skull of some small animal, in which all apertures have been stopped up, with the exception of the *foramen magnum*.[1] The instrument is blown on by way of this orifice in the same way as are the flutes and disc whistles. Koch-Grünberg has reproduced and described two whistles made out of (nose-bear?) skulls (Nasua sp.) from the Kobé Indians on Rio Cuduiarý, and one whistle consisting of a deer skull (Cervus rufus) from the Tukáno on Rio Tiquié.[2] These cranium whistles are partly plastered over with pitch, but the basal, and nasal, orifices are left open, whilst the cranium whistles described from the Choroti by Nordenskiöld only have the *foramen magnum* left open. Hence the former can be used both as open and as closed whistles, and consequently can produce two notes (and eventually their harmonies), whilst the cranium whistles of the Choroti are only capable of one note (with a possible harmonic). I do not consider it improbable that certain, very singular looking Old Peruvian whistles of earthenware or stone constitute forms of development out of the primitive cranium whistle.[3]

The cow-horn trumpets that Nordenskiöld has seen among the Choroti [177] are certain to be post-Columbian cultural elements, seeing that there were no cattle in America prior to the invasion by the whites. In these trumpets the mouthpiece consists of a reed, and the tone is produced by means of a reed splinter, which is cut out, and which, when the horn is blown, vibrates in the same way as the metal tongue of an ordinary toy trumpet.[4]

Nordenskiöld has seen music bows among the Choroti, but no instrument of that class has yet been described from that tribe, and as I personally got no opportunity of seeing a Choroti playing on a music bow, I am not in a position to describe the manner in which the instrument in question is played among these Indians.[5]

[1] Nordenskiöld (11), p. 187.

[2] Koch-Grünberg (3), pp. 302—304.

[3] See for example Mead (1), pl. IV, fig. 8; Joyce (1), p. 73 and plate VI, figs. 1 and 3; Jijón y Camano (1), pl. XVII, XVIII and XIX; von Rosen (1), pp. 378 and 379, and fig. 356.

[4] Nordenskiöld (11), fig. 50.

[5] For the occurrence of music bows in South America, see: Bolinder (2), Nordenskiöld (18), pp. 80 and 84; (11), pp. 176 and 177, and (1), p. 15.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

534 174 When pointing out that Gustav Bolinder saw music bows being used among the Busintana Indians of the mountain regions of northern Columbia, I made the following statement concerning the occurrence of this instrument in South America: »This music bow (the Busintana one) is almost exactly of the same kind as those in use among many African peoples. But, as we know, peoples who are widely separated from each other may, however, independently of each other make similar inventions. In this particular case there is, however, an additional circumstance which lends it an especial interest. The music bow is by the Busintana called 'marimba',

Fig. 167. Magic drum, consisting of a clay pot, partly filled with water, and with a skin stretched over it. Choroti. Gran Chaco, Bolivia. 1/6. Riksm. 10 3. 143.

a name which also in Africa is given to primitive musical instruments. 'Marimba', 'myrimba', 'marimbo' and 'kirimba' are words which occur in a great many Bantu dialects throughout Central Africa, and in every case signify musical instruments. In view of this fact, I think it not improbable that the use of the marimba was introduced into South America by slaves imported from Africa.«[1]

In a monograph on the music bow of the Busintana, Bolinder has subsequently adduced very strong reasons in support of my supposition that the music bow was actually introduced into South America from Africa in the above indicated manner.[2]

[1] von Rosen (9).
[2] Bolinder (2).

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

I never heard the Choroti sing or play any real melody; as I have already pointed out, the musical sense of these Indians appears to be exceedingly rudimentary. But when they are beating their magic drums (fig. 167), or using their magic rattles (fig. 170), one perceives that they are by no means lacking in a sense of rythm. 533

Fig. 168. Drumstick, of wood, with a small tinplate mounting. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 394.

The drums as well as the rattles are of a magical character; both are principally used at incantations and magic dances.

The magic drum consists of an earthenware vessel which is partly filled with water, and covered over with a piece of skin. The skin is tied round the mouth of the vessel with a string of caraguatá (fig. 167). A single drumstick is always used. Drumsticks are of wood, and usually carved; sometimes they have metal mountings (figs. 168 and 169). When the drum is to be used, it is usually stood on a ring of straw which is placed on the ground.

Drums consisting of clay pots with skin stretched over them have also been in use in North America. According to some early authors, such drums were not beaten with the bare hand, but with a drumstick: thus they were in this respect handled in the same manner as by the Choroti.[1] As to whether the North American drums were also partly filled with water, I am not able to say, as in the literature I have found no information on that point.

In a previous work I have endeavoured to show that, among the Choroti, water was put into the drums for the purpose of tuning them to the pitch that was wanted.[2] This detail of information, which I had from the Choroti themselves, is in all probability correct. Karsten, however, offers a different explanation. He is of opinion that the water is poured into the clay-pot drums exclusively for reasons

534 [789]

Fig. 169. Drumstick, of wood with ring shaped tin mountings. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 398.

[1] See for example Holmes (1), p. 34 and fig. 4.
[2] von Rosen (2), p. 13.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

534 of magic, and on this matter he writes as follows: »These drums consist of a plain clay pot, which is partly filled with water and has a goat- or deerskin stretched over it. Here the water evidently serves no practical purpose. It may therefore be supposed that the idea was simply to strengthen the magic force that the drum gave out when beaten upon.»[1] Karsten's saying that the water in the pot could serve no practical purpose seems to me strange, as, by practical experiment, one can easily satisfy oneself that a Choroti drum partly filled with water gives out quite a different tone to what it does when quite empty. We also know that elsewhere similar means are employed for tuning drums as desired, for it is stated by Engel that the Chinese used to fill their »po-fu» or »ku» drums, wholly or partly, with rice husks, in order to give roundness and mellowness to the tone.[2]

531

Fig. 170. Magic rattle, of calabash with incised ornament. Carrying cord of red, woollen yarn. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 386.

Figure 170 shows a magic rattle consisting of the shell of a calabash, and containing a dark-blue, much worn, piece of glass and two kinds of almost spherical seeds, one of them being black and the other yellow. The latter have a diameter of 5 mm; they belong to a species of Smilax. Professor Fries has pointed out to me that the roots of Smilax species are officinal. It has not been possible to determine the black seeds; their diameter is 4 mm. In the handle is fixed a carrying cord of

[1] Karsten (3), p. 205: »Diese Trommeln bestehen aus einem einfachen Tontopfe, der zum Teil mit Wasser gefüllt und mit einer Ziegen- oder Hirschhaut bezogen ist. Das Wasser dient in diesem Falle zu keinem anscheinend praktischen Zwecke. Wir können daher annehmen, dass man einfach glaubte, die zauberische Kraft zu erhöhen, die dem Tontopfe anhaftete, und die von der Trommel ausstrahlte, wenn sie geschlagen wurde.»

[2] Engel (1), p. 41: »The po-fu used to be partly filled with a preparation made from the husk of rice, *in order to mellow the sound*.» Italics by von Rosen.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

plaited, red woollen yarn; in the centre of the thick end of the rattle a circular hole has been made, 1.5 cm in diameter. It is through this hole that the above mentioned seeds have been poured into the calabash. The hole has then been stopped up with a plug of some black, waxy substance. The visible part of the plug is decorated with a mother-of-pearl button which originates from the whites. On the calabash there is carved ornamentation. 534 ●

Rattles do not always contain only seeds, for in their interior one may also find other articles, such as bits of tinplate, glass beads and bits of glass (usually worn into a resemblance of pebbles), see fig. 182.[1] The incised ornament on these rattles is probably in every case of magical significance, even when, as on the rattle in fig. 170, it does not form any pictorial representation which is perceivable by the uninitiated. Pictorial representations are, however, fairly common on magic rattles of calabash (see fig. 181) In many rattles, the seeds, bits of metal, etc., have been introduced by way of a hole at the end of the handle, fig. 181, into which a plug of wood has then been inserted. This kind of rattle is as a rule without a hole at the base, or carrying string (see table on page 169).

Nordenskiöld[2] as well as Karsten[3] has given valuable accounts of the dances of the Choroti. At some of these the Indians wear a kind of dancing girdle, hung with animal hoofs or dried fruit shells which beat against each other at the dancer's movements, and in that way make a rattling noise. Karsten has tried to establish that all Choroti dances originally were of magical purport,[4] whilst Nordenskiöld is of opinion that the Choroti also possess purely profane dances, connected with the sexual life of these Indians.[5] Nordenskiöld describes this kind of dance in the following way: »In the larger villages, among the Choroti as well as the Ashluslay, there is dancing every night, nota bene, if the belly is not empty. For the young people these dances are everything; all their interest 535 [534] 535 302

[1] The bits of glass that one finds inside magic rattles are as a rule so much worn and stone-like that it requires a mineralogist to ascertain the fact that they are not products of nature (see fig. 182). The statement that one often finds the magic rattles of the Choroti containing stones (Vide von Rosen (3), p. 12), is erroneous, and due to the illusive resemblance that these worn bits of glass bear to quartz pebbles.

[2] Nordenskiöld (18) and (17).

[3] Karsten (1) and (4).

[4] Karsten (4), p. 26.

[5] Nordenskiöld (17), p. 145.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

I cannot tell, but from an analogous carving from the Lengua it is very probable that they represent spirits.[1]

Most rattles contain seeds, and in many of them are also found a large number of metal fragments (see synoptical table below). The latter as a rule consist of small, square pieces of tin plate, for the most part with a side of from 5 to 15 millimetres. Bits of glass do not unfrequently occur in the rattles, although never in any great numbers; generally only a few bits of glass are found in any one rattle. In the Chaco, bits of glass are naturally extremely rare. In the rattle reproduced in fig. 181 were only found bits of tin plate and one cactus spine. Although this rattle belongs to the handle-hole type (see pp. 148, 149), it nevertheless has a hole in the bottom, with a plug of the kind I have described in connexion with the magic rattle, fig. 170. Professor Robert Fries has been kind enough to examine the different kinds of seeds that I have found in magic rattles, as well as in the bag mentioned below, and he then determined the presence of a species of Canna, a leguminous plant, a species of Convolvulaceæ, one of Sapotaceæ and a Smilax. Several kinds of seeds could not be identified from lack of material to compare them with.

Synoptic table of contents in magic rattles from the Choroti.

Riksm. coll. 03. 3.

No. of rattle	Type of rattle	Contents
386	Plugged hole through bottom. Carrying cord (fig. 170).	Seeds (Smilax and undetermined), 1 dark blue piece of glass.
385	Ditto.	Seeds (Smilax and Canna), 2 bits of zinc plate, 1 spiral spring of iron, 2 cactus spines.
390	Plugged hole through tip of handle, ditto through bottom. No carrying cord. (fig. 181)	Nine bits of plate iron, one cactus spine.
384	Like foregoing, but no hole at the bottom.	Seeds (Canna and undetermined), 2 bits of plate iron.
387	Ditto.	Seeds (Smilax, a leguminous plant, and of unknown species), 34 black glass beads, 1 blue glass bead and 4 yellowish-green bits of glass.
388	Ditto.	Seeds (Convolvulaceæ and unknown), 1 piece of zinc plate, and 1 uncoloured piece of glass.

From a Choroti I obtained by barter a small bag of red cloth (Riksm. 03. 3. 391), abundantly wound round with caraguatá string, in which he said he used to keep the things that he put into magic rattles.

[1] Grubb (1), p. 75, and fig. a on plate following p. 76.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
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say. In addition to the above-mentioned tribes I have seen them among the Toba, Tapiete and Mataco. The Choroti dolls are remarkable for the face-tattooing being so accurately performed, though it is done on the body. Dolls made of the toe-joints of ostriches also occur among them. The Toba and, according to HAWTREY[1]), the Lengua also have dolls of this kind.

A C 524

[1]) P. 297.

A C 534

Fig. 48. Skin-drum stick [illegible]. 1/3.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
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XXII.

Signals and Musical Instruments etc.

Considering their primitive state the (1) Choroti and the (2) Ashluslay possess a good many musical and signalling instruments. They have several kinds of whistles, rattles, *skin-drums* (Map 30) trumpets, flutes and the musical bow.

The skin-drums which, among the tribes here mentioned generally consist of an earthen vessel half full of water, over which a skin is stretched, are probably one of the elements of civilization which have come to the Chaco Indians from the mountain area of civilization. Like the Incas[1]), Indians of the Chaco never make use of more than one drumstick. (Fig. 48). The skin-drum is one of the elements of civilization in the spreading of which the whites have undoubtedly contributed. Thus the drums which the Indians of (48) N. W. Brazil employ give the impression of being imitations of the drums of the whites. The Katapolítani Indians call the skin-drum «tamborino» and the Siusí Indians «tamorino».[2]) Koch-Grünberg does not mention any other names for the skin-drum. Moreover these drums are covered with skin on both sides, while the real Indian drum has skin on one side only. Nor do I consider the skin-drums found among the Indians

[1]) Como, Vol. 4. p. 229 and Mead, Pl. 2, fig. 7 and 9.
[2]) Koch-Grünberg, (5), p. 80.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

of (47) Guiana to be genuine Indian ones. Indeed the Macusi call the skin-drum »Zambola».[1])

The same is true also of the skin-drum which GILIJ found among the Indians of the (74) Orinoco. GILIJ himself is of this opinion. He writes as follows: —[2]) »mi do a credere, che questa foggia di tamburi sia moderna tra' Tamanachi. La voce Ciambura, con cui li chiamano, sembra venuta dallo Spagnuolo tambor.»

In keeping with this, K. v. D. STEINEN found no skin-drums among the Indians on the Upper Rio Xingú, who, when he visited them, were unaffected by the civilization of the whites. The Karajá have likewise no skin-drums.

The fact that the Chaco Indians stretched the drum-skin over an earthen vessel and not over a wooden frame must have been owing to the difficulty of working in wood with poor tools.

In the table on page 183 I have indicated the tribes among whom I have found the skin-drum. They are, besides the (19) Aymara and (18) Quichua who have now skin-drums of European type, only the tribes living south of Sta. Cruz de la Sierra. Skin-drums are found north of that place too, but exclusively among civilized Indians. It is, however, possible that the Indians there have had genuine Indian skin-drums, as the skin-drum is mentioned by CASTILLO[3]) from the (25) Mojo Indians, and by ALTAMIRANO[4]) from the (65) Baure.

Negro-slaves may also have spread the skin-drum in S. America. Thus PANHUYS[5]) mentions the skin-drum from the negroes of Surinam, where it is also found among the (55)[6])

[1]) GOEJE (1), p. 45.
[2]) Vol. 2, p. 350.
[3]) p. 310.
[4]) p. 107.
[5]) p. 524.
[6]) GOEJE (1), p. 45.

2: Nordenskiöld E-5 (1908-1909)1919
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000 tribes from the whites and possibly also from negro slaves, it is yet evident that in the Chaco it is an element of civilization which the Indians have received from the mountain area of civilization.

Whether the special form of skin-drum — the earthenware drum — which is found among the Choroti and the Ashluslay, was also used by the Indians inside the western area of civilization, I do not know. Besides these tribes it is also known from the (8) Lengua[1]), (6) Mataco, and (X 4) Payaguá[2]).

A [534]

Bolinder[3]) who, a short time ago, published a work on the musical-bow, mentions it from the Busintana, Araucanians and Patagonians in addition to the tribes named in the table. Like several other explorers Bolinder is of the opinion that the Indians received the musical bow from Africa through the mediation of negro slaves.

String instruments are held to have been unknown in America in the time before Columbus. They are not mentioned in the literature on the Incas from the time of the Discovery, nor have they been met with in the archaeological excavations which have been carried out in the dry coast districts of Peru, where they might well have been preserved.

The Indians seem to have learned the use of these string instruments from their white conquerors or their negro slaves at a very early date. Gaspar de Carvajal[4]), who accompanied Orellana and described his journey, states of some Indian tribes on the lower Amazon (not at the mouth itself) that they had musical instruments fitted with three strings so-called »Arrabeles». He writes as follows: »Venían muy lucidos, con diversas divisas y trafan muchas trompetas

1) Grubb, Page 75.
2) Azara (2), Page 304.
3) (4).
4) Page 64.

2: Nordenskiöld E-5 (1908-1909) 1919
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y atambores, y órganos que tañen con la boca y arrabeles que tienen a tres cuerdas.»[1])

As early, then, as the time of ORELLANA the Indians of the Amazon possessed a fairly advanced type of string instrument which they must have got from the Europeans, since it is not possible that such a complicated musical instrument could otherwise have had in the whole of America merely a local occurrence.

This is a matter of considerable interest, as it shows how speedily new elements of civilization coveted by the Indians can be acquired by them after they have come into contact with the conquerors. It is also probable that, especially at the beginning of the period of conquest, where famous Indian tribes like the Tupinambá, some Arawaks and others were not oppressed, foreign elements of civilization were more easily assimilated by them than later on when they lost their independence and self-confidence.

The *rattle-gourd* (Map 31) is common among the (1) Choroti and the (2) Ashluslay, as well as among the (7) Toba, (6) Mataco, and (3) Tapiete. Otherwise I have not met with it among any of the tribes whom I have visited on my journeys.

The rattle-gourd, however, occurs over an extensive area in S. America. We find it among the (48) Siusi[2]), (48) Uanána[2]), (48) Tucáno[2]), (48) Tuyúka and other tribes on the Rio Negro, among the (61) tribes on the Rio Yapurá and Rio Içá[3]), (14) Bororó[4]), (9) Toba[5]) on the lower Rio Pilcomayo

[1]) It should be noted here that CARVAJAL's description of all that concerns the manners and customs of the Indians, with the possible exception of his description of the fight with the Amazons, gives a strong impression of trustworthiness.

[2]) KOCH GRÜNBERG (2).

[3]) WHIFFEN, Page 314.

[4]) K. v. d. STEINEN (3), Page 506.

[5]) DIEGO, Page 7).

2: Nordenskiöld E-5 (1908-1909) 1919
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Juan in Argentina. Two types of rattle gourd can be distinguished in S. America. In the one the tapering part of the calabash serves as handle, while in the other the handle consists of a peg stuck through the calabash. It is the first, more primitive type which is found in the Chaco. It is not possible, at present, to make a satisfactory map of the distribution of the two types, as most of the authors who mention the rattle-gourd do not describe it in detail.

Evidently the rattle-gourd is an ancient element of civilization in S. America, and at the present time it is impossible to say whence the Choroti and Ashluslay received it.

I have not seen dance-masks among the Choroti or Ashluslay. A large number of the ornaments mentioned here, however, are in the first instance worn when dancing. On these occasions also girdles are worn with pendent claws of the tapir, peccary and other animals, which serve as rattles. Rattles of this kind are also fixed on long sticks and used in a certain dance.

Similar rattles are widely spread in S. America. Their pendents, however, consist almost everywhere of fruit-rinds instead of claws. In the districts where I have travelled they are very rare. I have only seen them among the Churápa in the neighbourhood of Sta Cruz de la Sierra. From literature I know of such rattles of fruit-rinds from the Indian tribes on the Rio Negro[1]), Rio Yapurá and Rio Içá[2]), the Jivaro[3]), Bakaïrí[4]), Karajá[5]), Tupinambá[6]), Patamona and other tribes in the Roraima area[7]) Aekawoi[8]),

[1]) Koch-Grünberg (2), Vol. I, Fig. 174.
[2]) Whiffen, p. 243.
[3]) Rivet (1), Fig. 7 & 17.
[4]) K. v. d. Steinen (4), p. 420.
[5]) Ehrenreich (3), p. 40.
[6]) Soares de Sousa, p. 208.
[7]) G. M.
[8]) Schomburgk, Vol. I, p. 205.

2: Nordenskiöld E-5 (1908-1909) 1919
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Warrau[1]), Conibo[2]), Canella[3]), Tapuya[4]) Cumanagoto[5]) and from the Incas[6]), and rattles of the claws of animals from the Payaguá[7]) and Kayapó[8]).

If the great museums were searched a number of these rattles would probably be found from other tribes. Moreover the particulars I quote here from literature on the subject might certainly be considerably amplified. It is interesting to see how the claws are fastened on the rattles from the Chaco. (Figs 49a and 49b)

Trumpets of a peculiar kind are found among the Choroti, Ashluslay and Chané. They consist of a cow's horn with a reed mouthpiece (Fig. 50). I have not seen trumpets with such mouthpieces among any other Indian tribes visited by me, nor have I found them described in works on the S. American Indians except in some works dealing with the Chaco; I am therefore inclined to assume that the Indians have learnt their use from the whites. Still, this is not absolutely certain, as they are mentioned by so early a writer as Sánchez Labrador from the Mbayá[9].) It is, however, very probable that the Mbayá, even in Labrador's time, had learnt the use of such trumpets from the whites.

The Choroti and the Ashluslay have whistles made of reeds, wood and skulls.

The simplest whistle is one consisting of a small skull

[1]) Schomburgk, Vol. 1, p. 154.
[2]) Ordinaire, p. 300.
[3]) Kissenberth (2), p. 99.
[4]) Piso et Marcgrav, p. 274.
[5]) Oviedo y Valdés, Vol. 2, p. 230.
[6]) Cobo, Vol. 4, p. 220.
[7]) Azara (2), p. 159.
[8]) Pohl, p. 101.
[9]) »Mientras beben los convidados tocan una corneta, cuyo ronco sonido aturde y amedrenta. No es otra cosa esta bocina, que un cuerno de vaca, ó un calabazo largo, agujereado, y por boquilla un cañuto de caña con su lengüeta, al modo de las trompetillas que hacen los muchachos.» Vol. 2, p. 4.

[text continues on p. 179]

2: Nordenskiöld E-5 (1908-1909)1919
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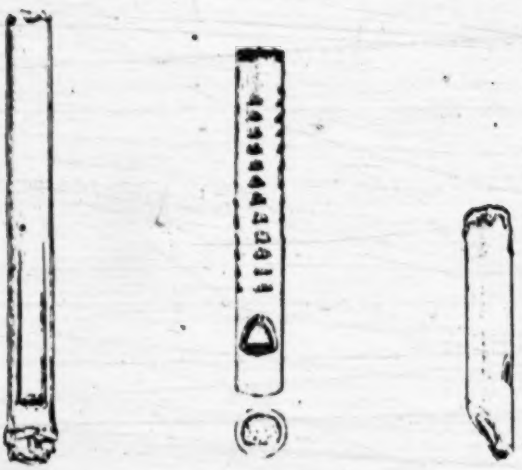

Fig. 50. Mouthpiece of reed for a trumpet. Choroti. G. M. (D. 929) $^{2}/_{3}$.
Fig. 51. Reed whistle. Choroti. G. M. (D. 788) $^{1}/_{2}$.
Fig. 52. " " " (D. 787) $^{1}/_{2}$.

2: Nordenskiöld E-5 (1908-1909) 1919
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in which all openings have been stopped with wax except the occipital cavity, which is used for whistling. I have seen such whistles among the Mataco and the Chimane, as well as among the tribes mentioned above. KOCH-GRÜNBERG[1] mentions them from the Tucáno and Kobéua, WHIFFEN[2] from the Indians on the Rio Yapurá and the Rio Içá.

A type of whistle which the Chaco Indians have plainly received from the mountain area of civilization (Map 32) is the wooden whistle represented in Fig. 53. The method of use is to hold the whistle vertically from the mouth and to blow into the upper hole while the lower hole is covered by the finger. I have found whistles of this kind among the (1) Ashluslay, (4) Chiriguano, (5) Chané, (23) Churapá, and (22) Yuracáre. In the Gothenburg Museum we have a similar whistle also from the (8) Lengua Indians. HAWTREY also mentions them from this tribe. A comparison of the whistles here illustrated with the object found at (A) Pachacamac on the Peruvian coast makes it clear that the latter is a thing of exactly the same kind as the one now used by the Indians of the Gran Chaco. It is, moreover, plain that this object was originally but the beam of a pair of Peruvian scales. (Fig. 55) Exactly as we ourselves, once upon a time, in our young days at least, amused ourselves by whistling on a key, the Indians used the hollow beam of their scales as a whistle. This use of the scale-beam evidently spread to the tribes east of the Andes who are fond of whistling but have no need for scales. Genuinely Indian scales and balances are no longer to be found in S. America, but the scale-beam of the old weighing-scales, degenerated into the form of a whistle, still exists among several tribes. This is an amusing instance of the manner in which the function of an object can be changed.

Nearly every young (1) Choroti and (2) Ashluslay man carries a small round wooden whistle. (Fig. 56). One sees

[1]) (2), Bd. 1, p. 302.
[2]) p. 211.

2: Nordenskiöld E-5 (1908-1909)1919
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whistles of this kind, though less frequently, among the (6) Mataco[1]). I have also seen them among the (4) Chiriguano, (5) Chané, (3) Tapiete, (23) Churápa and (22) Yuracáre. Grubb[2])

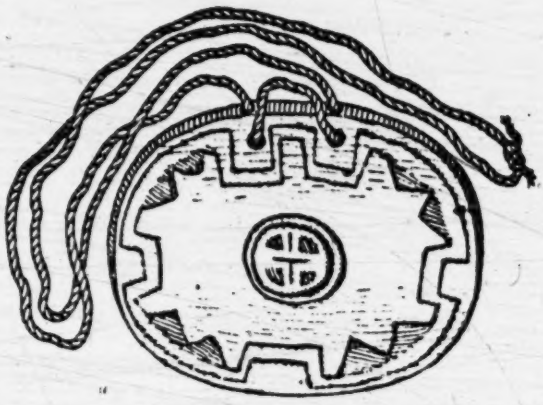

Fig. 50 a. Wooden whistle. Choroti G. M. (D. 793) 1/1.

mentions them from the (8) Lengua and Campana[3]) from the (9) Toba. This type of whistle, therefore, occurs within a continuous area along the Andes and in the Chaco. (Map

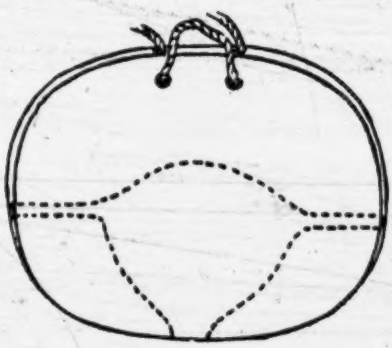

Fig. 50 b. Section of the same.

[1]) R. M. (03. 3. 500).
[2]) p. 75.
[3]) (2), p. 310, fig. 10 b.

2: Nordenskiöld E-5 (1908-1909)1919
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33) I have looked for these whistles in the vast archaeological collections from the Peruvian coast-lands possessed by the Berlin Museum of Ethnology without finding any. Nor is there any mention of them from those places in the literature to which I have had access. Nevertheless I think it very probable that we have here a culture-element which has come to the tribes east of the Andes from the mountain area of civilization. Moreover, I think it extremely probable that these whistles will, in the future, be found in the Peruvian coast-lands. Its western origin I conclude from the uniqueness of its area of occurrence, which is now exactly co-terminous with that of the above-mentioned whistles of the scale-beam type.

It is of interest to notice that the ornamental carving of these wooden whistles is everywhere very similar except among the Yuracáre[1]).

The flutes found among the Choroti and Ashluslay are very simple. They are made of reeds and much resemble those which Mead[2]) has depicted from the coast-tracts of Peru, though the latter are mostly made of bones. In the area explored by me, except among the tribes of the Chaco, I only know of them from the Yuracáre. Similar flutes are mentioned and illustrated by Koch-Grünberg[3]) and Whiffen[4]) from N. W. Brazil. The Gothenburg Museum possesses specimens from the Arecuna and other tribes in Guiana[5]). The Karajá have no flutes[6]). The flutes in different parts of S. America are too little known for me to venture to express any

[1]) Nordenskiold (5), p. 25. [2]) Pl. 5.

[3]) (2), Vol. I, p. 301, fig. 181 and 182. [4]) Page 211.

[5]) The Liljewalch-Thulin collection. G. M.

[6]) »The Karajá Indians are not rich in musical instruments. They have only signalling trumpets, small whistles and tortoise-shell scrapers; rattles serve as the accompaniments of songs. And that is all.» This dearth seems strange, as the Karajá are fond of singing and sing well, and seem to have considerable musical talent.» Krause, p. 315. The Châma, Atsahuaca, and Tambopata-Guarayo have no musical instruments, nor have the tribes of Tierra del Fuego.

2: Nordenskiöld E-5 (1908-1909) 1919
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opinion as to the place whence the Choroti and Ashluslay have received their flutes.

In the following table I give a review of the area of occurrence of the musical instruments found among the Choroti and Ashluslay within the area studied by me. I have included the pan-flute, which does not occur among the tribes dealt with here.

	Number on the Map.	Rattlegourd.	Skin-drum.	Trumpets.	Whistle Fig. 33.	Whistle Fig. 30.	Musical bows.	Skull whistles.	Flutes of the Chaco type.	Pan flutes.	Reed whistles.	Bone whistles.	Flutes in general.	Rattles made from fruit rinds and claws of animals.
Ashluslay	2			?										
Atsahuaca														
Aymara	19	—	+											
Chacobo														
Chámа														
Chané	5													
Chimane		—			—									
Chiriguano	4	—								?				
Choroti	1													
Churápa	23	—	O[1]											
Guarayú (Pausерna		—					—							
Huanyam		—	—		—									
Huari		—												
Mataco	6													
Quichua	18	—		—										—
Tamb.-Guarayo		—	—	—										—
Tapiete	3			?										
Toba	7,9			?										
Yamiaca		—			—									
Yuracáre	22	—	—	—										

[1]) O = received from the whites.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

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process and the other procreative functions of the woman is realized. The attainment of puberty therefore for the Indian girl certainly means the beginning of her sexual life, but at the same time it means her entrance into a very critical epoch of development, during which she is often — especially at child-birth and during the following menses — exposed to supernatural dangers. Hence the initiation ceremonies at puberty have for their object partly her direct protection against these dangers for the time being, partly her purification once for all from the evils associated with her sexual functions during the years to come or — to express it more plainly — to *harden* her against evil spirits. From this point of view we have to regard all puberty ceremonies of the Indians, even such practices as painting, scarification, and tattooing of the body or face, often undertaken with girls on the attainment of puberty.

In the dances and conjurations performed in honour of girls at puberty it is the women who, contrary to what is generally the rule in religious ceremonies, play the most prominent part. Among the *Choroti* the puberty of girls is celebrated with a magical dance called *Káusima* after the instrument which the women use for it; the instrument is called *káhuis*. The *káhuis* is a dancing-staff, two or three meters in length, made of a light kind of wood or bamboo, which has a bunch of deer's hoofs tied at the top. These rattles produce a hollow sound when the staff is struck on the ground and are supposed to possess a mysterious power to influence the spirits. This power of course must be explained from the fact that to the Choroti the deer is a demoniacal animal. The *káhuis* staff is the only magical instrument used by the Choroti women and it is never handled by the men.

The dance begins at the first new moon after the appearance of the signs of puberty, because the moon is believed to cause and have great influence upon the menstruation of women. It is performed every day until the following new moon, sometimes even still longer. At a *Káusima* dance which I witnessed the arrangement was as follows. The mother of the girl and some other elderly women formed a circle, or rather an elliptic ring, outside the hut where the girl was, each holding her rattling dancing-staff. Close to the ring four medicine-men were sitting at equal distances from one another, holding their rattle gourds (*pelíte*). There were besides two more medicine-men standing up, each provided with a drum. During the dance the women moved round ceremoniously with slow, regular steps, chanting loudly and marking time with their rattle staffs which they struck on the ground. The men outside the ring also chanted, shaking

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
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in their magical dances and conjurations the Indians as a matter of fact most often deal with these particular evil spirits.

These are features common to the religious beliefs of all Indians of the Chaco; indeed they are found among all South American Indians. But even in the Chaco this general belief in spirits appears in somewhat different forms among different tribes. The *Choroti* fancy that the spirits, *möhsek*, in their external appearance have the shape of old, withered men (*kihilahs*). They are, in the imagination of the Indians, provided with wings, which enable them to move rapidly through the air. Owing to their bird-like appearance the spirits are also called *ahuena* («the birds»). They are countless in number, mostly invisible, and as a general rule evilly disposed towards mankind. I never met an Indian who professed to have *seen* a *möhsek*, but nearly all say that they have *heard* their voices at night. One peculiarity of the demons of the Chaco Indians is that they only exist at night. As soon as darkness sets in the Choroti Indian fears mysterious dangers from the *möhsek*, who are then believed to draw near the villages in great numbers and even to enter into the huts, visiting the inhabitants with sickness and death. This is the reason why a traveller living with the Choroti can hear from some house nearly every night the low chant of some old man accompanied by the dull sound of the rattle gourd, *pelite*, with which he tries to conjure and keep off the supernatural pests. At daybreak however the spirits are supposed to leave for the forests and the plains — with a piping or whistling sound, the Indians explained to me, which they are very clever in imitating. For this purpose the Choroti use a special kind of round whistle which they generally wear hanging round the neck as an ornament. At their religious dances they produce, from time to time, shrill whistling sounds with these whistles, professedly with a view to conjuring the *möhsek*. The Indians believe that they can keep supernatural beings at bay by imitating them in their external appearance or their sounds.

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In the Chaco many weird sounds are heard at night which are apt to fill the natives with superstitious fear. The Choroti frequently told me about the »nightly whistling of the spirits» (*yap möhsek ahnáh*). The peculiar piping or whistling which is most often identified with the sound of the spirits is, I believe, produced by certain insects living on the stems or branches of the trees. The spirit of the tusca tree was specially mentioned to me, but this spirit is said to be a »good» being.

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The idea of the Choroti, that the spirits have the shape of old men, has given rise to a peculiar and cruel custom. They do not allow their

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Chapter XIV.

2. Other kinds of conjuration.

From what has been stated above of the social customs of the Chaco Indians, we realize that there is hardly any important event in the life of these natives which is not celebrated with religious or magical ceremonies of some kind. Generally these ceremonies are simple: drumming, the shaking of rattles, dancing and chanting form the main features in all of them. A few words may be said in this connection about the magical instruments, the *drum* and the *rattle*.

The drum, which is called *usyük* by the Choroti, *huitsyük* by the Mataco and *kaltaki* by the Tobas, is known to all Pilcomayo tribes, although it is nowadays little used by the Bolivian Tobas. It is a simple instrument, consisting of a small clay pot which is covered with a goat's or deer's skin. In beating the drum only one stick is used. Generally the pot is partly filled with water — a detail which I cannot exactly account for, since it has no perceptible influence upon the tone of the instrument. Probably the water is believed to eke out in some way its magical efficacy. The drum is the principal magical instrument of the Argentine Mataco who use the rattle gourd less, whereas, on the other hand the Choroti, who also use both instruments, seem to appreciate the rattle more. In a Mataco village the drum is at work nearly every day: sometimes the spirit of a dead Indian is frightened away with it, sometimes other evil spirits, disease-spirits, spirits of hurricanes, tempests, drought, etc. are conjured with it; sometimes the Indians try to influence the good spirits animating trees and plants with it, so as to effect an abundant harvest of algaroba and chañar. The Choroti again mainly use the drum during the algaroba season, when the instrument is beaten both day and night. In a Choroti village where I lived for several months, an Indian sorcerer was specially engaged for this important ceremony.

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The object of the drumming was to »hurry on» the ripening of the algaroba and the chañar fruits, and at the same time to frighten away the evil spirits of hurricanes and tempests which frequently blight these trees at the time when they are flowering. Drought is another great danger to a rich algaroba and chañar harvest. By means of drumming the demons, who cause drought by keeping rain back, are conjured. In some cases it seems as if the drumming Indian, by the very time in which he is beating his drum, were imitating the fall of the rain-drops. The Choroti drummer seldom wears the rattle-belt (*tahús*), which on the other hand seems to be regarded as indispensable by the Mataco drummer. The latter, when he is beating the drum, continually moves his body up and down and from one side to the other in order that the rattle which he wears round the waist may make a noise.

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The other of the two principal magical instruments of the Chaco Indians is the rattle gourd, called *poketá* by the Tobas, *votsotáh* by the Mataco, and *pelíte* by the Choroti. It consists of a round or oval bottle-gourd, hollowed out through a small opening in the tapering stem, and then filled with dry seeds, generally of tusca, small shells, beads, or other things producing a rattling sound. The outside is often ornamented with lines, triangles, squares, or other geometric designs. The instrument, when shaken, is believed to have a remarkable »power», which is partly due to the magical properties of the gourd itself, partly to the seeds or other things with which it is filled, partly to the geometric figures with which the outside of the gourd is ornamented. The instrument is used much on the same occasions and for the same purposes as the drum. I have stated, however, that the *Choroti* not only use the *pelíte* to frighten away or conjure evil spirits in general, but also for certain positive ends. To shake the rattle is in the Choroti language called *nekeālitse*; when it is shaken for a special purpose they use the expression *nekeālitse sīmä*, which means more or less: »to shake the rattle to obtain something». Thus I have mentioned that during the marriage and courtship dances such young men as are despised by the girls are in the habit of shaking their rattles in order to »hurry on» the latter and to have greater success in love. Similarly, when a young man goes out to find a bride in connection with the dances, his father at home continually shakes the rattle to »hurry on» the girls on behalf of his son and promote his important undertaking. There are many other instances of the same kind. When the Choroti women go out in the forest in the morning to collect algaroba beans for the brewing of the sacred beer or other wild

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sible. I may add here that the Choroti men are in the habit of wearing round their neck a kind of flat whistle made of wood and ornamented with incised figures. With these whistles they produce shrill sounds from time to time during the dances, which are supposed to imitate the sounds of the spirits and have the power of frightening them away.

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How the Indians believe themselves to be able to influence even natural processes by imitating them, appears in an interesting way from the following curious ceremony which I witnessed among the Choroti. These Indians cultivate the maize only on a very limited scale, and it is among them a rare cereal. In a village the women had obtained some maize and were cooking it on the open place outside the huts. While the maize pots were boiling, the women sang in a loud, quavering, guttural voice, which it is impossible to describe exactly, an extremely monotonous chant, which was evidently meant to imitate the monotonous sound and the regular, bubbling movements of the water boiling in the pot. The women explained to me that *in this way the pot would boil well and the maize soon become soft.* The chanting was thus a means of »hurrying on» a natural process according to the same magical principles as we have noticed in several other cases.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

plaited, red woollen yarn; in the centre of the thick end of the rattle a circular hole has been made, 1.5 cm in diameter. It is through this hole that the above mentioned seeds have been poured into the calabash. The hole has then been stopped up with a plug of some black, waxy substance. The visible part of the plug is decorated with a mother-of-pearl button which originates from the whites. On the calabash there is carved ornamentation. 534

Rattles do not always contain only seeds, for in their interior one may also find other articles, such as bits of tinplate, glass beads and bits of glass (usually worn into a resemblance of pebbles), see fig. 182.[1] The incised ornament on these rattles is probably in every case of magical significance, even when, as on the rattle in fig. 170, it does not form any pictorial representation which is perceivable by the uninitiated. Pictorial representations are, however, fairly common on magic rattles of calabash (see fig. 181) In many rattles, the seeds, bits of metal, etc., have been introduced by way of a hole at the end of the handle, fig. 181, into which a plug of wood has then been inserted. This kind of rattle is as a rule without a hole at the base, or carrying string (see table on page 169).

Nordenskiöld[2] as well as Karsten[3] has given valuable accounts of the dances of the Choroti. At some of these the Indians wear a kind of dancing girdle, hung with animal hoofs or dried fruit shells which beat against each other at the dancer's movements, and in that way make a rattling noise. Karsten has tried to establish that all Choroti dances originally were of magical purport,[4] whilst Nordenskiöld is of opinion that the Choroti also possess purely profane dances, connected with the sexual life of these Indians.[5] Nordenskiöld describes this kind of dance in the following way: »In the larger villages, among the Choroti as well as the Ashluslay, there is dancing every night, nota bene, if the belly is not empty. For the young people these dances are everything; all their interest 535 ● [534] 535 302

[1] The bits of glass that one finds inside magic rattles are as a rule so much worn and stone-like that it requires a mineralogist to ascertain the fact that they are not products of nature (see fig. 182). The statement that one often finds the magic rattles of the Choroti containing stones (Vide von Rosen (3), p. 12), is erroneous, and due to the illusive resemblance that these worn bits of glass bear to quartz pebbles.

[2] Nordenskiöld (18) and (17).

[3] Karsten (1) and (4).

[4] Karsten (4), p. 26.

[5] Nordenskiöld (17), p. 145.

535 centres on them. It is for them that they paint and deck themselves out.
302 At these balls the young Indian tries to appear as elegantly apparelled, as originally painted and decorated, as possible. Each day he paints himself after a different fashion, and arranges his ornaments differently. — These gentry, upon growing into older, staid, married men, no longer adorn themselves for ball parties, but only for war. — As to the Choroti girls, I have often seen them anointing their bodies with fish oil, which imparts to then an unpleasant smell. Their own opinion on this point is
[832] no doubt a very different one. To their thinking, we Europeans have an offensive cow smell. The level of elegance affected by the men is never
535 attained by the women. Still, they are, however, able to make the consoling reflection that it is, anyhow, in the first place for their sake that the lords of creation spend several hours of the day on their toilet.

»As has been said, it is in dancing that the whole interest of the young men and the young women centres. When the sun has set, then it begins. In a circle, or in a single rank, the men dance, marking the time by singing, may be: 'Táe-a-sa-lé, táe-a-sa-lé'. As the rhythm of the singing is slow or quick, so is the dancing. Music is a thing unknown at these
[533] dances. The chants that are sung are untranslateable refrains, which often are international, i. e., are used by many different tribes. The girls dance behind the men. Among the Choroti Indians it is the girl who takes the
[832] initiative in the matter of amatory ventures. She simply carries off with her, from the ball, any particular young man whom she may want as her lover for the night. These dances made a grand spectacle, as the moon, or a bonfire of pampas grass, shone on the gleaming bodies, I have seen as many as a hundred men form a dancing circle. At times the dance went quite slowly; at times it would go at a breakneck speed, raising clouds of dust, so that all one could see was a whirling melée of bodies and waving ostrich plumes.«

535 Of the dances of the Chaco Indians,[2] those that are obviously magical
789 are mainly performed as ceremonies of exorcism against dreaded spirits who have it in their power to cause illness or death; according to Karsten, magic dances are also resorted to in order to enhance the supply of wild, edible fruits.[3]

[1] Extract from Nordenskiöld (13), pp. 73, 75—77, and 79.
[2] Karsten (1).
[3] Karsten (4), pp. 25 – 28.

2: Karsten E-5 (1911-1913)1932 S17 Mataco

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584 the Indians live a happy and joyous life. We may therefore say that this is the proper »pairing-season» of the Chaco tribes, and particularly of the Choroti. At other times of the year, when fruit becomes scarce and life to the Indians is often a hard struggle for existence, they are little inclined 584 for merry-making, love, and marriage. In October, when the very nutritive chañar fruit ripens, the Chaco Indian is, as it were, revived, and a 535 few weeks later, when the algaroba and the tusca trees give their much 836 appreciated fruit, his life is at its gayest, manifesting itself of course in his sexual interests also. Those young men and women who want to be married then wander about from one village to the other, where dances take place. In each village three dances, those called *Jóhlōki*, *Ahlénta*, and *Avúshe*, are performed on four successive evenings. Free sexual intercourse is connected with these dances, and the girls play an important rôle in them although they do not actively take part in the entertainment. The dances of the Chaco Indians are mainly entertainments of the men. The girls generally content themselves with merely looking at the dancing youths, making their choice among them. Incidentally however a girl may be seen dancing for a while behind a man whom she particularly likes with her hands laid upon his shoulders, and after the dance she takes him away and keeps him for that night. This is something one may notice after each dance, and thus the Choroti dances during the »season» often have the character of real sexual orgies. The last *Avúshe*-dance on the fourth evening is, however, supposed to be decisive as far as marriage is concerned; those girls who have found the men whom they want to marry then keep them not only for the night, but for ever. The young man is taken to the village and house of the girl, where he stays as her husband, becoming a member of his wife's family.

584 The *Avúshe* may therefore be called the proper courtship and marriage 535 dance of the Choroti. The very name of the dance is interesting from this point of view. The Choroti word *avúshe* means 'vulture' — not the black vulture, but another kind common in the Chaco[1]) — and the name therefore may be translated as »the Vulture-dance». The idea of the Indians seems to be that just as the vultures jump and dance round their prey, the dead animal, so the Choroti men in the *Avúshe* dance jump round the girls trying to »conquer» them. The girls at this dance, it should be understood, stand within the ring formed by the dancing men. All the young men who take part in the dance are dressed in their best clothes

[1]) *Polyborus vulgaris.*

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK 6

and ornaments, wearing many-coloured mantles, necklaces, ear-tubes, big ostrich plumes on the head, and having the face painted. The men form a circle round the girls with arms interlaced round each others' waists. The dance chiefly consists in jumping with both feet at once and stamping hard upon the ground to the measure of a very noisy but monotonous chant. The ceremony is called *níssammaha aséhne*, »to hurry on the girls». The expression »to hurry on» (*níssammaha*), as we shall find later, is used by the Chaco Indians in many cases where there is a question of magically influencing the course of nature for good and useful ends. Just as the Indians believe they can hurry on or promote the growth of the fruit by influencing the tree spirits and by exorcising the evil demons who are trying to blight them, so they »hurry on» the girls in the sense that by the dancing and chanting the latter are prompted to make a definitive choice of a husband, whereas at the same time evil spirits are kept away from them. Courtship and marriage, it should be noted, are of those numerous critical occasions in human life when malignant supernatural powers are believed to be more than otherwise on the alert to do harm and spoil the good designs of men, and as usual the weaker sex is supposed to be particularly exposed to them. The courting dance *Avúshe* is thus in part held with the intention of keeping off this invisible molestation, so that the girl's choice of a consort for life may take place under good auspices.

A man who is not taken away from the dance by a girl has no possibility of getting either a temporary paramour or a wife. The matter wholly depends on the girls, and there are of course always men who for one reason or another are despised. I sometimes noticed such unfortunate lovers at the Choroti dances. Their experience had led them not to take part in the dances; they were sitting in a hut close by, eagerly shaking the rattle gourd (*pelíte*), as they said, »to hurry on the girls» and thus possibly to have better luck in the future. Since the women are much fewer in number than the men, it is necessary that some men are obliged to remain bachelors all their lives. These men were ridiculed not only by the women but also by their more fortunate brethren. On the other hand, there are no unmarried women, and even widows soon remarry unless they are very old.

The men may try to attract the girls at the dances by their beautiful ostrich plumes, necklaces, and other ornaments, but these means of attraction certainly only play a subordinate part. The Choroti woman evidently expects something more of a man whom she thinks of marrying

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

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process and the other procreative functions of the woman is realized. The attainment of puberty therefore for the Indian girl certainly means the beginning of her sexual life, but at the same time it means her entrance into a very critical epoch of development, during which she is often — especially at child-birth and during the following menses — exposed to supernatural dangers. Hence the initiation ceremonies at puberty have for their object partly her direct protection against these dangers for the time being, partly her purification once for all from the evils associated with her sexual functions during the years to come or — to express it more plainly — to *harden* her against evil spirits. From this point of view we have to regard all puberty ceremonies of the Indians, even such practices as painting, scarification, and tattooing of the body or face, often undertaken with girls on the attainment of puberty.

In the dances and conjurations performed in honour of girls at puberty it is the women who, contrary to what is generally the rule in religious ceremonies, play the most prominent part. Among the *Choroti* the puberty of girls is celebrated with a magical dance called *Káusima* after the instrument which the women use for it; the instrument is called *káhuis*. The *káhuis* is a dancing-staff, two or three meters in length, made of a light kind of wood or bamboo, which has a bunch of deer's hoofs tied at the top. These rattles produce a hollow sound when the staff is struck on the ground and are supposed to possess a mysterious power to influence the spirits. This power of course must be explained from the fact that to the Choroti the deer is a demoniacal animal. The *káhuis* staff is the only magical instrument used by the Choroti women and it is never handled by the men.

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2: Karsten E-5 (1911-1913)1932 SI7 Mataco

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their rattle gourds, whilst the men provided with drums beat them. The girl in whose honour the dance was held was standing motionless and silent at the entrance of the hut reclining against the wall and had to remain so during the whole ceremony. Sometimes, when towards evening she got tired and was on the point of falling asleep, one of the medicine-men came up to her and shook his rattle close to her face as if to keep her awake. The ceremony began in the afternoon and was continued with short pauses throughout the whole evening until midnight. I was informed that as long as the dance goes on the girl need not be veiled, but as soon as the conjuration is finished for the night she must have her face and her whole body well covered. During the whole period that the dance is performed she is moreover obliged to fast, avoiding fish and meat and living only on some light vegetable food.

I may add that all the men who took part in the ceremony were painted on the face in one way or another. Some of them simply had the face coated red with roucou or black with charcoal, whereas others had X-shaped or other patterns painted on the cheeks. The men's faces are always painted in this way at the conjurations of the Indians, and these paintings have a purely magical significance.

The drinking of algaroba beer also forms part of the magical practices at the feast, but it is strictly limited to the men.

The object of all these ceremonies is to protect the girl against the evil spirits, the *möhsek*, by which she is believed to be particularly attacked during her unclean condition. The spirits try to enter into her through the face — especially through those parts where there is a natural opening of the body, such as the eyes, the ears, the nose, and the mouth — and also through the ventral parts, the consequence being, if they succeed in doing so, that she will fall ill and die, or become supernaturally pregnant and give birth to a monster. It is in this way that the Indians account for the birth of those deformed children which they kill directly after birth. To prevent such frightful accidents the girl's head and body are covered after the conjuration is finished for the night. By means of the dancing, chanting, drumming, etc. the evil demons who take an interest in the girl and swarm about her are conjured and rendered harmless. According to the idea of the Indians she is not only protected for the time being against their attacks, but she will also retain a certain power of resistance against them in the future.

The puberty of a girl is not celebrated in all cases among the Choroti with so many ceremonies as in the case just described, but the

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

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Painting by E. Wasteen

The *Kduslma*, a magic dance of the, Choroti, performed in the honour of girls at puberty.
The girl is standing at the entrance of the hut.

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2: Karsten E-5 (1911-1913)1932 SI7 Mataco

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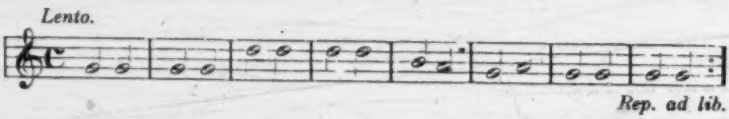
Kausima dance is always obligatory. Thus in a case which came under my notice the dance was performed by a middle-aged woman who, holding the dancing-staff (*káhuis*) in her right hand, proceeded with slow regular steps backwards and forwards in front of the house, where the girl, in whose »honour» the dance was performed, was sitting motionless. The woman accompanied her dance with a peculiar monotonous chant marking time, as usual, with the *káhuis*. Sometimes one of the small girls went and joined her, holding the dancing-staff together with her and walking in the same time. The dance and chant was begun at sunset and continued with short intervals till midnight. The melody of the chant which was repeated over and over again, was the following:



It is evident that the object of the dance was to drive away or keep off the evil *möhsek* who were trying to harm the girl.

Exactly the same custom prevails among the neighbours of the Choroti in the south, the Ashluslay Indians, who in their culture are so closely related to the Choroti. The fact that the rattling dancing-staffs form a magical instrument peculiar to the Chaco tribes, may also be inferred from the puberty ceremonies in vogue among the *Lenguas* of Paraguay. These ceremonies are shortly described by Mr. Barbrooke Grubb, but since he gives no explanation of their significance I may mention them in this connection, with more reason since the Lenguas are culturally closely related to the Indians of the Mataco-Choroti group. The main dance is, as among the Choroti, performed by the women who circle round the girl to be initiated, chanting and marking time with their rattle staffs. A troop of lads, dressed in ostrich plumes and wearing masks to represent evil spirits, issue from the forest, running one behind the other in a serpentine formation, move in and out among the crowd, jingling bunches of hoofs and from time to time uttering prolonged shrill cries. At their near approach the women dance and chant with increasing vigour round the girl pretending to protect her and to drive off the masked »spirits» [1]). The idea just indicated by me with regard to the Choroti, namely, that the young woman will, through the initiation, become permanently har-

[1]) Grubb, *op. cit.* p. 178.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
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in their magical dances and conjurations the Indians as a matter of fact most often deal with these particular evil spirits.

These are features common to the religious beliefs of all Indians of the Chaco; indeed they are found among all South American Indians. But even in the Chaco this general belief in spirits appears in somewhat different forms among different tribes. The *Choroti* fancy that the spirits, *môhsek*, in their external appearance have the shape of old, withered men (*kihîlahs*). They are, in the imagination of the Indians, provided with wings, which enable them to move rapidly through the air. Owing to their bird-like appearance the spirits are also called *ahuena* («the birds»). They are countless in number, mostly invisible, and as a general rule evilly disposed towards mankind. I never met an Indian who professed to have *seen* a *môhsek*, but nearly all say that they have *heard* their voices at night. One peculiarity of the demons of the Chaco Indians is that they only exist at night. As soon as darkness sets in the Choroti Indian fears mysterious dangers from the *môhsek*, who are then believed to draw near the villages in great numbers and even to enter into the huts, visiting the inhabitants with sickness and death. This is the reason why a traveller living with the Choroti can hear from some house nearly every night the low chant of some old man accompanied by the dull sound of the rattle gourd, *pelîte*, with which he tries to conjure and keep off the supernatural pests. At daybreak however the spirits are supposed to leave for the forests and the plains — with a piping or whistling sound, the Indians explained to me, which they are very clever in imitating. For this purpose the Choroti use a special kind of round whistle which they generally wear hanging round the neck as an ornament. At their religious dances they produce, from time to time, shrill whistling sounds with these whistles, professedly with a view to conjuring the *môhsek*. The Indians believe that they can keep supernatural beings at bay by imitating them in their external appearance or their sounds.

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In the Chaco many weird sounds are heard at night which are apt to fill the natives with superstitious fear. The Choroti frequently told me about the »nightly whistling of the spirits» (*yap môhsek ahnáh*). The peculiar piping or whistling which is most often identified with the sound of the spirits is, I believe, produced by certain insects living on the stems or branches of the trees. The spirit of the tusca tree was specially mentioned to me, but this spirit is said to be a »good» being.

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The idea of the Choroti, that the spirits have the shape of old men, has given rise to a peculiar and cruel custom. They do not allow their

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2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

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I have so far only spoken of the dances and other rites which take place at the preparation of the sacred drinks. During the algaroba season festivals are held almost continuously, and these festivals are chiefly celebrated with drinking-bouts and dancing. Those of the Chaco Indians who have been in contact with the whites and seen the great festival with which, in Argentine and Boliva, they celebrate their carnival in February say that the algaroba season is their own carnival time and that they, too, have their carnival dances. The dances which among the Choroti take place at that time have partly been described before in connection with the customs practised by these Indians at courtship and marriage. In addition to the customary courtship dance *Avúshe*, the great festival, which is called *lākinene*, is celebrated with two more dances, those called *Ahlénta* and *Jóhlōki*. *Jóhlōki* is the name by which the Choroti call the Tobas, a fact that seems to indicate that the Choroti have borrowed the dance from their neighbours. The Tobas themselves call the dance *Nahotti*. It is a ring-dance; the dancing men are arranged in a circle and have their arms round each other's waists, moving round to the right or to the left to the rhythm of a chant. The *Ahlénta* again is identical with the Toba dance *Nomi*. Nevertheless, the Choroti seem to have borrowed it from their southern neighbours, the Ashluslay Indians on the lower Pilcomayo, a fact that may be inferred from the name; for just as *Jóhlōki* means »the Toba dance», so *Ahlénta* means »the Ashluslay dance» (Choroti *Ahle* = Ashluslay). I would add in this connection that the dances of the Chaco tribes are, in the main, common to all the tribes; there are certain dances which occur among different tribes under different names.

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The chants sung at the dances are rather monotonous and are composed of a series of words which apparently have no meaning; for instance in the *Jóhlōki*:

Hä-e-sa-alia,
Hiáh-hia-ália,
He-éh-hia-ália, hia-ália,
Hi-áh,
Hä-he-éh, hä-he-éh,
Hä-se-éh, hä-se-éh, hä-se-éh, etc.

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Only the younger unmarried men perform these dances, the older ones being constantly engaged in drinking algaroba beer (*atäs*). Unmarried girls are allowed to be present, but as we have seen they do not as a rule

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK 6

take part in the dances, although courtship is connected with them. After the dances sexual intercourse is indulged in by the partakers in the festival, each girl choosing for herself a lover for that night among the dancing men.

Nordenskiöld mentions the Choroti as an instance of Indians who have purely profane dances, pointing out that they have special reference to the sexual life. The latter of course is true of some dances; but Nordenskiöld's mistake in regarding the Choroti dances as purely profane is due to the fact that he did not study their customs thoroughly and therefore failed to see the ideas underlying them. In fact, it is clear that the Choroti dances are gradually losing their original magical or religious significance and have a tendency to degenerate into mere amusements, a course of development which we frequently notice with regard to Indian customs. But even the Choroti dances still, in the main, retain their ceremonial character. Thus my Indian informant, an elderly man, told me that when the Indians dance they collect the whole supply of fruit gathered for the occasion in the house of an old man, i.e. a man initiated in the magic art; and *they believe that the dancing will make the fruit abundant* — not only these particular fruits, but those growing in the forest as well. The principle is again the same as in the Mataco dance to promote the growth of the sugar cane and in the Toba dance to make the chañar fruit abundant. As we have seen, the drumming, practised by the Choroti and the Mataco during the »season», has to a certain extent a similar object. That the chanting which accompanies the dances has at the same time for its object to frighten away evil spirits, is evident.

From this point of view it is interesting to compare the ceremonies performed by the Choroti during the »season» and the sexual liberty connected with them with certain »mysteries» of a similar kind practised by some Indian tribes in other parts of South America. Thus the Yurupary ceremonies of the Uaupes Indians in north-western South America present a close analogy to them. Among these tribes also certain mysterious ceremonies, consisting chiefly in dancing, are performed at those seasons of the year when the most important fruits reach maturity. The object of these ceremonies appears to be to influence the spirits which are thought to animate the plants and thus to promote fertility. Many facts show that these spirits are nothing but souls of the dead which have taken up their abode in the trees and plants. Moreover, at these mysteries sexual intercourse is promiscuously indulged in by those

2: Karsten E-5 (1911-1913)1932 SI7 Matacc
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taking part in them, evidently with a view to propagating the useful plant spirits and giving them an opportunity to enter into the women and to be reborn in human form.[1])

I believe that in the Choroti dances performed during the algaroba season and the sexual licentiousness which forms part of them we have in fact remains of similar mysteries in the Chaco, which for one reason or another have partly lost their original significance, having now at the outset only the general character of joyful harvest festivals.

Again, the great festival dance of the Tobas is the *Nomí* already mentioned. It is performed on all particularly solemn occasions, but especially during the algaroba season. It is the great »carnival» dance of the Tobas. Even some time before the proper season begins the Indians start to dance, believing that by dancing they can accelerate the ripening of the fruits (*niapilák map*), just as the Mataco and the Choroti believe that they can hurry on the ripening of the fruits and the coming of the season by beating drums. In dancing the Indians arrange themselves in a long line, or so as to form a crescent. With arms interlaced round each other's waists they move, running alternately to the right and to the left and at the same time forwards to the other end of the dancing place where the chain is broken. Thereupon they move back in the same way. As is customary in the Chaco, the dancers themselves chant the measure of their steps in a loud voice. Similarly the women do not take part in the dance although they are allowed to be present as onlookers. — During the season the dance goes on daily and is believed to influence continually the growth of the fruits.

But the *Nomí* dance is performed during the algaroba season with another object in view also. The Tobas believe that at this happy and joyful time they receive invisible guests in great numbers. These are the *kadepakál* or *ilúh*, i.e. the spirits of departed Toba Indians, who also want to be present at the joyful festivals and to take part in the drinking-bouts. But these guests, who are feared or at any rate awake uncanny feelings in the living, are not welcome and do not receive any sort of cult. On the contrary, measures are taken to keep them off, and the Indians told me that precisely this is part of the object of the dance *Nomí*. The dancing men by means of their movements and their loud chanting prevent the spirits of the dead from approaching the villages or the place where the drinking and feasting goes on.

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[1]) See my *Civilization of the South American Indians*, pp. 427 sqq.

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sible. I may add here that the Choroti men are in the habit of wearing round their neck a kind of flat whistle made of wood and ornamented with incised figures. With these whistles they produce shrill sounds from time to time during the dances, which are supposed to imitate the sounds of the spirits and have the power of frightening them away.

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How the Indians believe themselves to be able to influence even natural processes by imitating them, appears in an interesting way from the following curious ceremony which I witnessed among the Choroti. These Indians cultivate the maize only on a very limited scale, and it is among them a rare cereal. In a village the women had obtained some maize and were cooking it on the open place outside the huts. While the maize pots were boiling, the women sang in a loud, quavering, guttural voice, which it is impossible to describe exactly, an extremely monotonous chant, which was evidently meant to imitate the monotonous sound and the regular, bubbling movements of the water boiling in the pot. The women explained to me that *in this way the pot would boil well and the maize soon become soft*. The chanting was thus a means of »hurrying on» a natural process according to the same magical principles as we have noticed in several other cases.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

equipment in large carrying-nets and bags; at such times the men march along unburdened, carrying in their hands only bow and arrows. This is, however, easily accounted for, as on the trek the men have always to be prepared to kill game for procuring food. If they, like the women, were hampered by heavy loads, they would practically have no chance at all of taking a ready arrow shot at game encountered on the march.

I never once saw grown women amusing themselves with any games or sports, whereas this is frequently the case with the men. The chief occupations of the latter consist of hunting, fishing, the gathering of wild honey and the manufacturing of various weapons and implements (see the above table of division of labour as between the sexes). The men give considerably less time to actual labour than the women, and to me it seemed as if the life of Choroti wives was hard and laborious, whilst that of the men, as a rule, was pretty light and easy-going.

Nevertheless, the men are by no means hard or cruel to their wives, and it appeared to me as if the women took it as a matter of course that they had to work for their husbands and children in the way they did, and, generally speaking, they seemed quite content with their lot in life. Indeed, I noticed many instances of real domestic happiness.

Parents bear great love to their children. These, when quite small, are carried by their mothers in a broad strip, or piece, of cloth in the way fig. 180 shows. The Choroti do not have many children; it is only seldom that the number of children exceeds four. According to Nordenskiöld, they are given names only when old enough to answer to them. The same author has noted down the following Choroti names, of which the first three are men's names, and the remainder women's names: Yóselianée (the killer of foxes), Hótenie (Mataco), Éstiáhua (a gallinaceous bird), Hayku (not sweet), Kósoki (suffering from skin eruptions), Aséshnialo (women in plenty).[1]

Parental authority does not amount to much, and actual bringing up and discipline is entirely out of the question. In cases where parents attain so great an age that they become irksome to their children, it is not unknown for the latter to kill them. Nordenskiöld's interpreter, Flores, once witnessed a Choroti man burning an old and decrepit woman alive. Old men and women, who are suspected of working evil by witchcraft, are sometimes burned alive, and therefore it is possible that belief in the

[1] Nordenskiöld (13), p. 85.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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[1] Nordenskiöld (13), p. 85.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 180. Husband and wife, with baby. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[888 754 683] 622 supernatural, of some kind or other, plays a leading part when children kill their aged parents.

Every village is ruled by a chief or headman. According to the observations of some investigators, these headmen do not nowadays possess any great power or authority, but among the Choroti whom I visited in 1901, the chief's authority was by no means inconsiderable. For example, it only needed my arranging with him that the Indians were to carry out a certain piece of work, and the work would be done. For the work performed by the Indians I paid the chief in goods, which he allotted among them as he himself thought fit, as it appeared. In war, each village [643] contingent is under the leadership of their headman. It was stated by the soldiers of Fort Crevaux that all Choroti used to be under a paramount chief, whose authority over all the other chiefs principally consisted in his being entitled to taking chief command in war. The office of village headman as a rule descends from father to son.

622 554 That certain Choroti chiefs used to be held in greater respect than others was made evident to us at a visit we made to a sugar plantation on our return journey to Salta. A large number of Choroti had just then

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

arrived at this plantation to look for work. Led by their chiefs, they had made the long journey from the region of their homes. The chiefs, some of whom had met us in the Chaco, whilst others had only heard of us, wished to pay us a call. Personally I do not possess any notes about this reception, but I have come across some in Fries' diary. He thus refers to the incident: »When the Choroti Indians, whom we knew from Tatarenda and who were now working here, saw us, they came, almost to a man, and greeted us, being evidently very glad to meet us again. *The principal chief, at the head of all the lesser caziques*, was among those who came and paid us their respects.»[1]

A favoured position in the village community is that held by the medicine men; for their services they are rewarded by a — from a Choroti point of view — generous remuneration in the form of food and drink. That among the Choroti the medicine men are held in great esteem, and that everybody is anxious to be on good terms with them, appears only natural to anyone with a knowledge of what an important part magical conceptions play with these Indians. It is largely by the Finlander explorer, Rafael Karsten — oft-quoted in the present work — that ethnological science has been enriched by information and detailed reports on the magical customs and practices of the Choroti, as well as of other Chaco tribes.[2]

The Choroti Indians believe that man, all his life through, is more or less subject to influences from spirits, who, on the whole, are of a harmful nature. Especial danger is to be apprehended from spirits on certain occasions such as child-birth, pubescence and death. Usually the evil is worked by a spirit, »mohsek», entering a person through one of the orifices of his body and thereby assuming possession of him. If at birth a child is deformed or very sickly, it is supposed to be possessed by some evil »moshek», and is on that account killed.[3] When a girl has attained the age of puberty, during the first critical, time she must keep a covering over her head, so that no evil spirit may be able to enter her body by way of her nose, mouth, eyes or ears.[4] The occasion of a girl attaining puberty is celebrated with a dance which undoubtedly is of a magical character.

[1] Professor Robert Fries: diary, X, p. 14. Italics by von Rosen.
[2] See Bibliography attached.
[3] Karsten (4), p. 176.
[4] Karsten (4), p. 165.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

sticks, in the holes that have been made, in order to keep them from closing up. After the healing of the wound, these plugs are, however, taken out, and it is only when the boys have reached the age of puberty, that the ear-lobe is gradually distended by means of plugging with a succession of ear blocks, or ear-lobe discs, of increasing sizes. Only youths of mature age, and men, are allowed to take part in certain religious dances. At the performance of these, it is of especial importance to be protected from evil spirits. According to the belief of the Indians, ear discs afford them such protection,[1] and it is therefore possible that this is the reason why the boys begin wearing ear discs only after having attained puberty. For reasons which I shall explain below, I consider that the *piercing of the ear-lobes by no means always implies wearing of ear-lobe discs*. Among the Choroti, the ears of little girls are often pierced in the same way as in the case of the boys[2] (see the woman with pierced ear-lobes in fig. 22), *but never once did I see a Choroti woman wearing discs in her ears*, nor is there in the literature on these Indians any photographic evidence to be found, as far as I know, of Choroti women wearing ear discs. Further; neither Baron Erland Nordenskiöld,[3] nor Doctor Rafael Karsten, both explorers who have lived for a long time among the Choroti, are now able to recollect with any certainty having seen any Choroti woman wearing ear discs.

To cause bleeding by perforating the skin, has among the Chorotis[4] — as among other tribes in the Chaco — a magic significance, and the possession of many scars is considered a great advantage. Thus, for instance, the Chaco Indians will with ostentation and satisfaction show even scars from bites of the palometa fish. When the Choroti believe themselves possessed by some evil spirit, they prick themselves with sharp-pointed bone awls, and imagine that the spirit leaves the body with the outflowing blood. About this custom, Karsten writes: »If the arm fails or trembles in pulling the bow, its weakness is, according to the belief of the Chorotis, due to the presence of a mohsek in the blood and they think that the evil demon will leave the body with the blood drawn. The scars left by the cuts are kept up with care and shown with satisfaction,

[1] Karsten (4), p. 134, and Grubb (1), p. 72.

[2] Nordenskiöld observed in a Choroti village that *all* the girls had their ears pierced. According to a letter of his, dated 13 May, 1921. Rockefstad collection of manuscripts, volume 1921, letter N.

[3] According to letter referred to in footnote 2.

[4] I should be Chorote. - Analyst

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6
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almost with pride. *Evidently it is thought that the very scars afterwards act as a sort of charm against the spirits.*»[1]

If scars left by wounds are considered to possess desirable, magical properties, it would easily be supposed that perforations that have been kept open must possess the same properties in a greatly enhanced degree. Among the Chiriguano, neighbours of the Choroti, the actual piercing of the lower lip constituted the most important of the ceremonial acts performed on the boys on their having attained puberty, and among the Chané — whose culture is akin to that of the Chiriguano — not only was the lower lip pierced on this occasion, but the boys were also given other wounds on the body.[2]

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From what I have adduced above, it will therefore be seen that, according to the belief of the Indians, *the making of punctures or perforations on the body, has in itself magic effects, and, consequently, that these magic effects are not believed to arise with the fixing of some ornamental object of magical character — e. g., a tembeta, or an ear disc — into the perforation.*

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This being so, here, in my opinion, lies the explanation of the fact that Choroti girls sometimes have pierced ear-lobes, although it has never *with certainty* been shown that they ever wear ear discs. On the other hand, from reasons I shall present below, it is *probable* that old Choroti women, with distended ear-lobes, *exceptionally* do wear ear discs.

I myself, as well as other investigators of the Chaco peoples, have seen elderly women among the Choroti with holes in their ears so large that one was forced to suppose that the lobes had been stretched in some way or other. Such stretching, however, may not *necessarily* be due to the wearing of ear blocks, but *may* have been produced by manual manipulation. That, by such means, perfectly monstrous distension of the soft parts of the body can very well be brought about, is proved by, among other things, the practice of the Hottentot women of lengthening out — merely by frequent pulling — the labia minora into an enormous size.[3] A similar stretching of the hole in the ear-lobe might, from the Indians' point of view, have for its object the increasing, proportionately to its size, the magic properties of the hole. Among the Incas, the size

[1] Karsten (4), p. 157. Italics by von Rosen.
[2] Karsten (4), p. 200.
[3] von Luschan (1), p. 378.

of the hole in the ear-lobe was probably an important matter, a point noticed also by Karsten, who writes on this subject: »Of all marks of honour which they received at this initiation, *the holes* in the ear-lobes were the most important. The Inca himself pierced the ears of the young princes with big golden pins, which afterwards were left in the wounds *in order to make the holes larger.*»[1]

For reasons which here follow, I can, however, quite well imagine that exceptions might be made from the rule that ear discs may not be worn by women. Karsten states his observation that women, as a rule, take no part in religious ceremonies, incantations or dances, but adds: »There are exceptions to this rule, and just as elderly women, who have been properly initiated, may perform certain religious ceremonies of their own, so may they also occasionally take an active part in certain religious dances.»[2]

Bearing in mind the fact that ornaments of magical character have their specific uses at dances and other religious ceremonies, and also that ear blocks, as we have seen, are looked upon by the Choroti Indians as means of protection against evil spirits, I do not find it improbable that *elderly women, who have been initiated in magic ritual, on certain occasions may wish to strengthen their power to resist evil spirits by enlarging, as do the men, the holes in their ear lobes by putting in blocks, or discs.*[3]

Among another Chaco tribe, the Toba-Takshik, Dr Lehmann-Nitsche has observed that a certain distinctive attribute, which as a rule is exclusively meant for the one sex, may, in rare and exceptional cases, be assumed by the other. Lehmann-Nitsche tells of a man who had been given the tattooing especially distinguishing women, but points out that this must have been an extremely rare case, seeing that it greatly astonished even the interpreter, and suggests the possibility of the man not being considered an »homme normal».[4] It is noteworthy that the tattooing in question, described and reproduced by Lehmann-Nitsche, is practically identical with a tattooing design that adorned a Choroti *man* (see fig. 66).

[1] Karsten (4), p. 136. Italics by von Rosen.

[2] Karsten (1), p. 9.

[3] Fig. 30 in »Indianlif» (Nordenskiöld (13) shows a redoubtable old Choroti woman, who had executed the tattooing Nordenskiöld had done on himself. This old woman's ear-lobes are enormously distended.

[4] Lehmann-Nitsche (3), pp. 15 and 16.

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Fig. 110. War club, of hard, heavy wood (palo mataco). Choroti, Gran Chaco, Bolivia. 1/4 Riksm. 10. 3. 93.

As war weapons the Choroti use, beside bows and arrows, short, round-handled clubs of some very hard and heavy wood, usually palo mataco. The head and handle of the clubs is always carved in one piece (fig. 110). With these seemingly not very formidable weapons, the Indians are able — on account of the great hardness, heaviness and strength of the club material — to deal terrible blows, and they know how to use them with great skill.

In fighting their rivals, the Choroti women sometimes use knuckle-dusters of tapir hide or wood,[1] the latter being of a type identical with specimens found in ancient Indian graves in the mountain region to the west.[2] The Choroti use also bone awls as daggers. A bone awl especially suitable for a weapon is reproduced in fig. 111. It consists of the lower part of the leg-bone of a small deer; the foot serves for a handle, and the hoofs forms an excellent pommel. The weapon fits the hand very well when the thumb rests against the sole of the hoof.

For cutting up game, the Choroti use knives made of sharp-edged cane splinters. Knives and poniards, of cane, have been very extensively used in South America. Even among tribes possessing knives of stone or metal, to this day knives of cane are being used in certain ritual ceremonies. Thus Bolinder, for example, mentions that among the Ijca Indians of Northern Columbia, in childbirth the navel is cut with a cane splinter.[3]

Fig. 111. Awl, made out of a shank bone of a small deer. Bone awls are sometimes used as poniards. Choroti, Gran Chaco, Bolivia. 2/3. Riksm. 03. 3. 181.

The Choroti do not, however, possess only weapons of offence, but also weapons of defence. When on the subject on dress, I have described the mail shirts, made of closely woven, thick

[1] Nordenskiöld (11), p. 55 and 56; also (13), p. 81.
[2] von Rosen (1), pp. 203 and 204.
[3] Bolinder (1), pp. 240 and 243.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
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very qualities which the Indians appreciate in their leaders. He was valiant, cunning, and eloquent, and, being a great warrior, had provided his people with firearms which made the Tobas superior in war to all other Chaco tribes and dangerous enemies even to the whites.

The Eakachi, as is customary in the Chaco, hold their assemblies under a shady algaroba tree, generally at the time of the new moon. Besides watching the conduct of their chiefs, they have to deliberate questions of war and peace and to appoint an extraordinary chief when an attack against an enemy is planned. In addition, they act as judges or arbitrators in quarrels and fights between the men.

A social feature characteristic of all Chaco tribes is the relative matriarchy or »mother-right» prevailing among them. Descent is traced through the female, the child being supposed to belong to the mother's, and not to the father's, tribe or clan. Closely connected with this idea is the custom prevailing among most matriarchal peoples, that when a man marries, he stays with his wife's family, becoming a member of her clan. All these features are found among the Pilcomayo tribes, but particularly among the *Choroti* where »mother-right» has developed into real mother-rule. Thus in those parts of the Choroti country where they are neighbours with other tribes and intermarriage takes place, it is the rule that if the woman is of the Choroti tribe the children become members of that tribe, whereas, if a Choroti man marries a woman of another tribe, he himself and the children become members of that tribe. This was particularly noticeable in regard to the Ashluslay in the South with whom the Choroti frequently intermarry. Thus the »great chief» of the Choroti living near the fort Guachalla, the old Atamo, was on his father's side of Ashluslay descent, but his mother being a Choroti woman he had himself become a Choroti.

The »mother-right» of the Choroti is not carried to such an extreme that for instance the maternal uncle or some other relative on the mother's side is regarded as the guardian of the children. Among the Choroti both parents are the guardians of the child although, as in other matters, the mother has always more to say. Nor does it imply that parentage is wholly attributed to the mother. On the contrary, the custom of couvade, as it is observed by the Choroti, shows that this maternal people is well aware of the father's great rôle in the procreation of children. The »mother-right» of the Choroti and of other Chaco tribes is in fact only a secondary phenomenon, evidently dependent on the social conditions which have developed among the tribes in this country, and which in their turn

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

C 562 are due — at least in part — to geographical causes. As to the Choroti, it is to be noticed that among them the women in general have great social importance, to such an extent in fact, that we may speak of a real gynaecocracy. This is in the first place due to the numerical disproportion between the sexes which, at least at present, exists in this tribe. The causes of this phenomenon are difficult to assign; there is for instance, no general custom of killing new-born female children which would account for it. Infanticide is indeed practised in the case of monstrous children and twins, but it has reference to male children as well as to female. Female children are appreciated perhaps more than male children, for the very reason that women are so few in the Choroti society. Whatever the real cause of the numerical paucity of the women, it is this fact which explains their social influence. Besides this, we have to take into consideration the strict division of labour between the sexes existing among the Indians. For instance, sowing and planting, the carrying of fuel, the gathering of wild fruits, the brewing of intoxicating drinks, and a good deal of other home industries are wholly or chiefly incumbent on the women. This to the Indians means that no man *can* successfully do work which custom prescribes shall be done by a woman. A consequence of this is that particular importance is ascribed to female work as such and that women in general are held in great esteem. From this point of view we must also explain the custom that a man who marries must go and live with his wife's family. It is mainly due to the reluctance of her parents to separate from her on account of the work she performs. Among the Choroti no compensation is given for a bride, because no bargaining of any kind whatever takes place between the members of the tribes. Instead of that, custom prescribes that the young husband shall render services to her parents, which is only possible if he stays with the family of his spouse for a longer or shorter time. In this way matrilocal marriage in the Choroti and other Chaco tribes seems to me to have originated, although the Choroti at any rate are not now aware of these services being really obligatory and a form of compensation for the wife. Marriage among them appears now as a wholly private affair based upon the voluntary agreement of both parties. But where a matrilocal marriage has developed, the children are naturally looked upon as belonging in the first place to the mother and to her tribe or clan, whereas the husband's importance as a family father is only secondary.

C [162] C [847] C 562 462 591 583

M 562 584 The same kind of »mother-right» and gynaecocracy also prevails, or prevailed formerly, among the *Mataco* Indians who, for instance, allow

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba S112
Choroti SK6

C 765 forming a falling scale in a minor key, which makes a very peculiar impression. At the time of mourning the women and children commence this wailing at fairly regular intervals and all at once, as if it were agreed upon. To one who lives for some time in a Choroti village it is evident C 765 that wailing forms part of Indian etiquette. Not only must the mourners, when they arrive from another village, which has been abandoned on 576 account of a death, be received by a choir of weeping women and children: any guest who arrives in a village shortly after a death has taken place there is received in the same way. When in March 1912 I visited the Choroti in the interior of their land, where no European had yet penetrated, I noticed with astonishment that on my arrival at a village I was received with loud wailing by the women and children. I soon learnt that a great chief had died some time ago; but the fact that the wailing was renewed to receive me remained unexplained. I was told, however, that this peculiar way of receiving strangers was prescribed by Choroti custom. The most probable explanation seems to me that it is feared lest the spirit of the defunct should revisit his people in a strange disguise, and that the wailing has for its object to propitiate him or to frighten him away. Such ideas prevail among other South American tribes also, both in the Chaco and elsewhere.

M C T 765 302 562 There are certain other customs observed in connection with mourning, but they are as a rule limited to the women. Among all Pilcomayo tribes it is customary that when a man dies, his widow, daughters, and sisters cut their hair short with the sharp teeth of the *pilometa* fish and burn it. Ceremonial wailing always attends the cutting of the hair. When I asked the Choroti why a widow cuts and destroys her hair after the death of her husband, I was told that the dead husband, who wants his wife to follow him to the grave, is believed to attack her through the hair. In order to rid herself of this danger she shaves it off. Exactly T 765 the same belief prevails among the Tobas: the dead husband or father will seize his surviving wife or daughter by the hair and cause her to fall ill and die. Among the Tobas a widow cuts her hair twice, first immediately after the husband's death, the second time some months later T [602] when the hair has again grown long. At the same time she repeats the wailing. Similarly the nearest female relatives have to diet, in so far as they are not allowed to eat fish for many months. If they infringe the rules of diet in regard to fish they may sicken and die. After a Toba woman has cut her hair the second time she may again eat fish, her mourning is over and she is allowed to marry again. Even some of the

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

C 622 *anétsiäs vuh*, exerting a certain social influence. Chieftainship however, among the Choroti is rather nominal than real; even the »great chief» is in fact destitute of power, although in relation to other tribes and to the whites he exercises certain representative functions. Thus when commissions from the sugar factories arrived in the Chaco to negotiate about the sending of Indian labourers to northern Argentine, they had to deal with the chiefs, who through the medium of interpreters gave them answers on behalf of their people. But even the »great chiefs» cannot compel anybody to work, nor can they interfere with the private affairs of the families, in which the father and the mother have full liberty of action. Still more imaginary is the power of the village chief, who is nothing but a *pater familias* enjoying a certain esteem. He cannot command anybody, but merely represents his village community in relation to outsiders, just as the »great chief» represents the whole sub-tribe.

C M 622 The dignity of chief is not hereditary among the Choroti, nor apparently among the Mataco. When the chief dies, the oldest family fathers of the community assemble under the big algaroba tree which serves as a club-house and elect a new chief, the election taking place in connection with a drinking-feast.

C 388 621 Old men are generally held in great esteem, and the chiefs are generally, although not invariably, men of advanced age. Among the Choroti, old men are held in particular esteem for superstitious reasons, since they are believed to be changed, after death, into evil spirits. As we shall see later on in the chapter on the religion of the Indians, the spirits of the Choroti are believed to appear in the shape of old men. Since the natural magical power of the human body is increased with advancing age, it is natural that old people are feared, but the supernatural halo which surrounds them of course at the same time is apt to give them social influence. Above all their supposed connection with the spirits makes them qualified to exercise religious functions. Independent of any particular initiation, every old man is credited with the power of conjuring the spirits and is thus always more or less a sorcerer. If therefore we wish to speak of a social distinction among the Choroti, we may say that the sorcerers, called *ayïeu*, are the only members of the Choroti society who in a certain sense form a class of their own or mark the beginnings of a social differentiation. Since, however, every old man is more or less expert in the act of magic and considered able to handle the rattle gourd (*pelïle*) or the drum (*usyúk*), the *ayïeu* of the Choroti cannot be called professional sorcerers in the strict sense of the word.

C 388 754 565

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SL12
Choroti SK6

Social classes do not exist among the Choroti, nor any distinction between rich and poor. All members of this primitive society are equally rich or equally poor and, owing to the great social sympathy which unites them, property is in practice to a great extent common to all. The relative communism or socialism existing among the lowest Chaco tribes will be touched upon later.

The social organization of the *Mataco* was originally the same as that of the Choroti, but the Mataco-Nocténes of Bolivia have in this as in other respects been considerably influenced by the Tobas and probably also by the Avas, and therefore at present stand socially higher than the primitive Choroti. As to the *Tobas*, in their social organization they are much superior to the Choroti, although their society is essentially founded on the same principles. Even among the Tobas the »tribe» is in its essence only a group of families united by the tie of blood-relationship. But whereas among the Choroti the chief is nothing but a respected family father without real power, the Toba chief, called *alyánek*, seems to exercise a considerable authority, at least in time of war. Although the Tobas have not been conquerors in the same sense as the Avas, they have always been a warlike race of Indians, and such peoples generally have more strongly organized societies than those who have never or only rarely tried their strength in fighting against enemies and have not grown accustomed to the order and discipline which war requires.

Social ranks and classes in the strict sense of the words do not exist among the Tobas, just as they are unknown to the Avas; but we can trace the germ of a nobility in the fact that the sons and descendants of a great cacique or war chief generally enjoy greater esteem than other members of the society. The chiefs have power to command, especially in times of war, when their orders are unfailingly obeyed. They distingush themselves from the rest of their people by having several wives and often by being richer, since of the spoils taken in war the main part is allotted to them. Formerly they also distingushed themselves externally from other men by a peculiar arrangement of the hair. According to the Catholic missionaries Dobrizhoffer and Charlevoix, [1]) all Guaycurú tribes used to pluck out the hair from the forehead to the crown of the head so that the forepart was bald. This arrangement, which had magic significance, was called *nalemrá*, and was the reason why the Tobas were called by the Spaniards

[1]) Dobrizhoffer, *An Account of the Abipones*, II. 17. Charlevoix, *Historia del Paraguay*, I. 135.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

273 has to take part if he wishes to keep on good terms with the Indians. — »Among the Ashluslay I have taken a hand in several large-scale drinking carousals, and among the Choroti in some smaller ones. It proved an interesting experience, but it required a great deal of fortitude to be able to go through with it. In most villages there is a special [361] place set apart for drinking. There the men begin to foregather about noon, each man bringing his sitting mat and his calabash bowl of a capacity of two to three litres. Huge calabashes of beer are brought by the women. Sometimes the beer is decanted into a large earthenware vessel, out of which it is served. At a festivity where old man Aslù was the host, algaroba beer was handed round to the guests in a genuine European night-chamber, of well-known shape. [276] What lees or dregs there may be in the beer receptacle, the partakers simply fish out with their hands, and then strain between their filthy fingers.

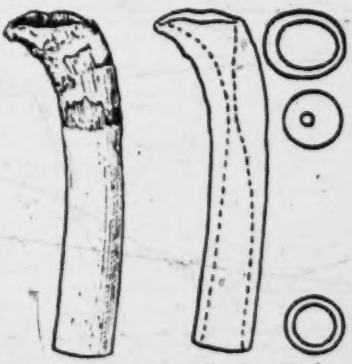

Fig. 153. Tobacco pipe of bamboo. The figure shows the mouthpiece turned downwards. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 228.

[57-576] »A guest, especially if he has the misfortune of being very popular, is very well treated. He is provided with a sitting mat and a calabash holding two or three litres. When he sits down, all wave to him with the flat of the hand, and he must make a similar response. That constitutes the greeting of welcome. After that, it is a matter of drinking, for here the motto is 'no heeltaps', and one must not be uncivil. When one has managed to get a litre down, without throwing it some more the palm-waving is done. The old men sitting next to one, draw their more or less dirty fingers across one's mouth. This is the height of friendliness. If, after all this, one has to run away for a moment, one must by no means forget to wave the hand to one's neighbours and say 'paa', for if not, one is exceedingly unmannerly. The worst of it is that one must come back, and hold out, right through the feast even, whilst one's hosts are drunk and yelling, making speeches, spitting in the festive bowl, and generally feeling them- [276] selves good and hearty. Without giving a wipe to the pipe-stem, one has to smoke, turn and turn about, with dirty, slavering, old men.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

»When the old men have felt themselves properly tuned up, then they have painted my face black with soot and spittle. They have wanted to pull out my eyebrows and eyelashes, and they have laughed my long and ugly beard to scorn, and they have wanted to bore through my ears.

»All during these drinking carousals, when everybody was drunk, I have never heard a hard word spoken; never noticed the slightest quarrel arising. When the Indian is full of his home-brewed beer, he is not pleasant, but he does not get insolent; he belongs to the type of drunkard who wants to embrace everybody, and in whom the manifestations of friendliness become unpleasantly exaggerated. He gets blatantly valiant, and shouts about warlike deeds. He discusses plans of campaigns, but has forgotten all about it when he is sober again. He sings and he is happy.»[1]

The Choroti Indians are inveterate smokers. As the tobacco which these Indians grow and prepare is of a very inferior quality, they are keen on bartering tobacco off the whites. Frequently the Choroti mix their tobacco with shavings of an aromatic tree bark.[2]

Tobacco pipes consist of pieces of bamboo, fig. 153, or wood, figs. 154—161. The latter are straight, that is to say, the longitudinal axis of the tobacco retainer is in a straight line with the longitudinal axis of the stem.[3] The pipes of bamboo are straight, or of a slightly curving bend, fig. 153. Choroti pipes are as a rule made in one piece, figs. 153—161, but composite pipes (pipes with the stem fitted into the bowl) do occur, although they are exceedingly rare.[4]

The pipes have in the forward end, as a rule, a funnel-shaped depression in which the tobacco is stuffed (the tobacco retainer). From the bottom of the funnel the smoke passes through a channel, the diameter of which is only a couple of millimetres in the part nearest the tobacco retainer but usually widens towards the opening of the mouthpiece (see sections, figs. 153—161). In pipes with a wide mouthpiece opening, the latter as a rule is provided with a vegetable fibre filter, which cleanses

[1] Nordenskiöld (13), pp. 89, 91 and 92.

[2] As to Indian conceptions of intoxicating beverages, tobacco and other narcotics, see for example Karsten (5), pp. 28—72.

[3] The Ashluslay, neighbours of the Choroti, possess both straight and angle-bent pipes. In the Ashluslay pipes of the latter kind the longitudinal axis of the tobacco retainer and that of the stem form an angle of about 90 degrees. Nordenskiöld (13), figs. 41—43.

[4] A composite pipe from the Choroti is reproduced and described by Nordenskiöld (21), fig. 8.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
Choroti SK 6

M 114

of a ford. Those Chaco Indians who live beside the river, clever swimmers as they are, possess great experience and dexterity in performing such tasks and in fact, no white traveller in the Chaco could easily do without their services. At the fordable place where we crossed to the other side the water was so low that men and animals had to swim only a short distance, our clothes being taken over in a big cow's hide folded up so as to form a sort of vessel. Within half an hour we were all safely on the other side of the river and could continue our journey.

T [101]

The Bolivian sub-tribes of the great Toba nation inhabit the region between fort d'Orbigny in the south and the village Villa Montes (Mission of San Francisco), situated about twenty leagues to the north, on the left bank of the Pilcomayo. I proposed to visit these Indians later on. For the present my destination was the country of the Choroti which lies about midway between the fort d'Orbigny and the next Bolivian military station on the Pilcomayo, Guachalla. To reach the first Choroti village I had to travel about eight leagues along the narrow path which — in the main following the river but at times retiring far from it — runs from d'Orbigny in a southerly direction. This path is in some places almost obliterated, especially when it leads through the plains, and for the traveller there is the frequent risk of losing it, in which case he may easily go astray in the wilds.

C 648

It was in the beginning of December that I first made the acquaintance of the Choroti in their own land. These Indians are now what the Bolivians call *indios mansos* (tame Indians) and there is no danger for a white man in visiting them. The few white settlers on the Pilcomayo have very seldom had any trouble with the Choroti, who — in contrast to the arrogant Tobas — are a peaceful people. A *kilai* (the name given every white man) is therefore kindly received if he himself treats the Indians well and does not arrive empty-handed. So it was with Nordenskiöld during his stay among the Choroti, and so it was with me. It is not possible to live among the Chaco Indians without bringing articles of exchange, and for my own part I had a good supply of such things. Among these were not only shirts, needles, thread, small mirrors, glass beads etc., but above all tobacco which is the article most appreciated by these Indians. Tobacco in fact is a sort of tribute which everybody must pay who travels in the Chaco and has to deal with the natives. Every male member of the small community whose guest I was had to receive his share — of course only a small quantity, just enough to fill the pipe a couple of times — and the gift had to be repeated every day. The Choroti

C 574 276

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

only smoke for pleasure, and I doubt whether they ever used the tobacco ceremonially as is the rule among the Indians of tropical South America. The custom is evidently of comparatively recent origin and has been introduced by the whites.

Choroti is a Guarani name given to our Indians by the Avas (Chiriguano) and now recognized by themselves. Their proper tribal name, however, is *Jóhuaha* [1]), a word the etymology of which is obscure but which seems to be equivalent to »our own people». Among themselves the Choroti never use any other name than Jóhuaha.

In the history of the Gran Chaco, a small and peaceful tribe like the *Choroti* can have played only an insignificant rôle, and the earliest European explorers seem not to have known them. The first author who mentions them is Father Lozano, S. J., who in his book of 1733 calls them Xolotas. But he tells us absolutely nothing about them, and the same may be said of several later travellers who occasionally mention them. The Swedish traveller von Rosen, who made a short visit among the Choroti in 1902, has published a small study of these Indians under the title *The Chorotes Indians of the Bolivian Chaco* (Stockholm, 1904). But v. Rosen's paper is based on very superficial observation and contains several errors which make its ethnographic value rather problematic. [2]) This may partly be due to the fact that v. Rosen never visited the Choroti in their own land on the other side of the Pilcomayo river, but only those families of the tribe which have been in the habit of living for certain periods near the village Caiza, situated just north of Yacuiba, at the easternmost cordilleras of the Andes.

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[1]) Nordenskiöld erroneously gives this name as *Yóshuahá* (*Indianerleben*, p. 28) and Hunt equally erroneously as *Yofuaha* (*El Choroti o Yofuaha*, *Revista del Museo de La Plata*. Bd. 23. Liverpool, 1915). The Indians themselves most clearly pronounce their name *Jóhuaha*, with the accent on the first syllable. The f-sound is lacking in the Choroti language, as in the languages of many other South American Indians.

[2]) Thus, when v. Rosen says that »polygamy only occurs among the rich, and the caciques have quite a number of wives», this sentence alone contains three mistakes. First, the Choroti are strictly monogamous, any form of polygamy being prohibited by their social morality and their women, who are extremely jealous; secondly, there are no »rich» people among the Choroti, all being equally rich or equally poor; and thirdly, although we may speak of caciques or chiefs among them, these have very limited power and do not distinguish themselves from the rest of the tribe in the way v. Rosen's statement seems to indicate. — Evidently v. Rosen has confounded the Choroti chiefs with those of other and more advanced tribes, probably the Avas (Chiriguano) or the Tobas.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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[574 578]

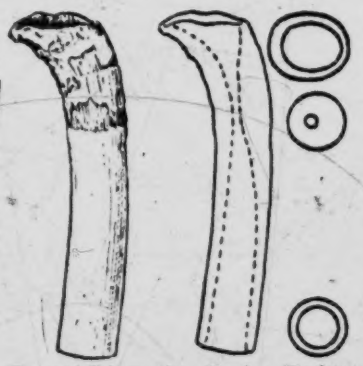

Fig. 153. Tobacco pipe of bamboo. The figure shows the mouthpiece turned downwards. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 228.

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2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI12
ChorotiSK6

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remain silent, perhaps muttering some menacing words. This is particularly the way in which the Tobas receive undesired guests. The best thing for a visitor so received is to leave the Indians as soon as possible, since these treacherous and daring savages would not shrink from taking his life.

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When the Choroti guest leaves the house where he has paid a visit he always says: *yápeh*, or: *ayápeh*, »I go», or »I go back (to my own house)», to which the host only answers: *mah*, »go on!», »hurry on!». The Toba guest, on leaving, says *malhék*, or *kiuo* or *málhe'giuo*, (»I go», »I go back to my house»), the host answering with the word *hamóh* (»hurry on!»).

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The *C h o r o t i* barter with those foreign tribes with whom they maintain friendly intercourse, their own most important article of exchange being dried fish. From the Guaraní-speaking Tapiete Indians, and in some cases from the Avas, they receive especially the much appreciated cereal, maize, as well as the red *urucú*-paint, indispensable for painting the face and the body on festival occasions. The *urucú*-shrub, it should be noted, requires a purely tropical climate and does not grow in the Chaco. On the other hand the Choroti barter with the Ashluslay in the south, receiving from them among other things one of their most costly ornaments, a necklace consisting of small buttons cut out from snail's shells and strung closely together. Such a necklace is from three to six yards in length, and is highly valued not only as a pure ornament but also on account of the magical properties ascribed to it. The receiving of these necklaces from the Ashluslay seems to be but a transit-trade, for the latter Indians in their turn buy them from the tribes in the interior of the Chaco, probably from the Lenguas, who according to Mr. Grubb, make such necklaces. Mr. Grubb adds that »these strings of buttons are the money of the people» and that the value of a big necklace is one sheep.[1] As a matter of fact, the Choroti when bartering with the Ashluslay pay one sheep each for these necklaces.

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Of more interest are the commercial connections which the *T o b a s* have with neighbouring tribes, especially with the Mataco-Noctenes in the west and the Avas in the north. At any rate there is frequent intercourse between the Bolivian Tobas and the Avas living at the Catholic missions Tarairi, Tihüipa, and Machareti. In connection with the visits which these Indians are in the habit of paying to the country of the Tobas, I had an excellent opportunity of studying primitive Indian trade. The

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[1]) Grubb, *op. cit.*, p. 71.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI12
Choroti SK6

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2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

other tribes have larger flocks and more wives than the rest of their people. It is not a part of the Indian's nature to accumulate property for the future. This habit of living from hand to mouth is the chief reason of the poverty characteristic of the Chaco Indians. Only the women, who are in the first place responsible for the food supply in the house, may save food, at least for the next few days or weeks. The seeds necessary for the next sowing are also guarded by the women.

Among the Chaco Indians there is no law of inheritance, owing to the native custom of destroying a man's property, even his house, after his death.

Honesty is one of the native virtues of the Indians. Among the primitive *Choroti* and *Ashluslay*, who at the time when I travelled in the Chaco were quite unaffected by European civilisation, thefts and other gross crimes were entirely unknown, being prevented by the strong social feeling. Honesty is not only displayed towards fellow-tribesmen, but also towards a stranger and a white man, unless he has through his own conduct forfeited the respect which the primitive Indian, owing to his natural sense of right, would normally have for his property. As a significant proof of this I may mention the following experience which I once had among the Choroti. In April 1912, shortly before I intended to leave these Indians and return to Yacuiba, one of my mules ran away from me and was lost in the forest in the neighbourhood of a Choroti village, and in spite of prolonged searching could not be found. At last I was obliged to leave the village without my mule. At the end of the same year, about eight months later, I again visited these regions and the same Choroti village. My Indian friends at once informed me that some time after I had left, my mule had been caught by some other Choroti Indians and was now being kept in a other village, a few hours walk further off. An Indian was at once sent for the animal, and on the following day the mule was brought and given back to me. The Indians, supposing that I would return some time, had kept the animal, fed it well and taken care of it. It is needless to say that it would have been the easiest thing for them to hide it until I had again left, and to keep it for ever. They however considered it their duty to restore it to its right owner, who was a white friend of theirs. It is also needless to add that had the mule been found by someone of the whites living in these regions, I should never have seen it again.

The savage Indians are frequently accused by the whites of dishonesty. There is, I think, some exaggeration in this; but as a rule however,

M 556 M [251] M 428 768 C 577 M 177 577

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»When the old men have felt themselves properly tuned up, then they have painted my face black with soot and spittle. They have wanted to pull out my eyebrows and eyelashes, and they have laughed my long and ugly beard to scorn, and they have wanted to bore through my ears.

»All during these drinking carousals, when everybody was drunk, I have never heard a hard word spoken; never noticed the slightest quarrel arising. When the Indian is full of his home-brewed beer, he is not pleasant, but he does not get insolent; he belongs to the type of drunkard who wants to embrace everybody, and in whom the manifestations of friendliness become unpleasantly exaggerated. He gets blatantly valiant, and shouts about warlike deeds. He discusses plans of campaigns, but has forgotten all about it when he is sober again. He sings and he is happy.»[1]

The Choroti Indians are inveterate smokers. As the tobacco which these Indians grow and prepare is of a very inferior quality, they are keen on bartering tobacco off the whites. Frequently the Choroti mix their tobacco with shavings of an aromatic tree bark.[2]

Tobacco pipes consist of pieces of bamboo, fig. 153, or wood, figs. 154—161. The latter are straight, that is to say, the longitudinal axis of the tobacco retainer is in a straight line with the longitudinal axis of the stem.[3] The pipes of bamboo are straight, or of a slightly curving bend, fig. 153. Choroti pipes are as a rule made in one piece, figs. 153—161, but composite pipes (pipes with the stem fitted into the bowl) do occur, although they are exceedingly rare.[4]

The pipes have in the forward end, as a rule, a funnel-shaped depression in which the tobacco is stuffed (the tobacco retainer). From the bottom of the funnel the smoke passes through a channel, the diameter of which is only a couple of millimetres in the part nearest the tobacco retainer but usually widens towards the opening of the mouthpiece (see sections, figs. 153—161). In pipes with a wide mouthpiece opening, the latter as a rule is provided with a vegetable fibre filter, which cleanses

[1] Nordenskiöld (13), pp. 89, 91 and 92.

[2] As to Indian conceptions of intoxicating beverages, tobacco and other narcotics, see for example Karsten (8), pp. 28—72.

[3] The Ashluslay, neighbours of the Choroti, possess both straight and angle-bent pipes. In the Ashluslay pipes of the latter kind the longitudinal axis of the tobacco retainer and that of the stem form an angle of about 90 degrees. Nordenskiöld (13), figs. 41—43.

[4] A composite pipe from the Choroti is reproduced and described by Nordenskiöld (21), fig. 8.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco
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C 593 152 [691]

the men in such cases showed to what extent the women dominate the home life of the Choroti. There is not, among these Indians, any punishment for adultery as such, for the very reason that punishment in any form is unknown within the tribe. — Among the Tobas again a man may beat his wife if she commits adultery.

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On the other hand, if a Choroti woman gets to know of a female rival, the result will in all probability be a fight between the two women, who use a sort of boxing glove of hide, or small daggers consisting of the leg-bone of a deer pointed at the end. The same custom is followed by the Mataco and the Toba women, in whom jealousy is likewise a prominent quality. Among the Tobas particularly, fights between girls who have fallen in love with the same man are of frequent occurrence. Similarly, if a married woman gets to know that her husband maintains illicit relations with another woman, the consequence is in most cases a fight between the legitimate wife and the rival, and these fights are not seldom sanguinary. The one even tries to kill the other which, of course, she very seldom succeeds in doing. Such fights are continued for several hours, often for a whole night, during which the two enraged women beat each other with the hands, scratch each other with the nails, or wound each other with big cactus thorns which they have tied at the wrists.

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Fig. 110. War club, of hard, heavy wood (palo mataco). Choroti. Gran Chaco, Bolivia. 1/4 Riksm. 10. 3. 98.

As war weapons the Choroti use, beside bows and arrows, short, round-handled clubs of some very hard and heavy wood, usually palo mataco. The head and handle of the clubs is always carved in one piece (fig. 110). With these seemingly not very formidable weapons, the Indians are able — on account of the great hardness, heaviness and strength of the club material — to deal terrible blows, and they know how to use them with great skill.

In fighting their rivals, the Choroti women sometimes use knuckle-dusters of tapir hide or wood,[1] the latter being of a type identical with specimens found in ancient Indian graves in the mountain region to the west.[2] The Choroti use also bone awls as daggers. A bone awl especially suitable for a weapon is reproduced in fig. 111. It consists of the lower part of the leg-bone of a small deer; the foot serves for a handle, and the hoofs forms an excellent pommel. The weapon fits the hand very well when the thumb rests against the sole of the hoof.

Fig. 111. Awl, made out of a shank bone of a small deer. Bone awls are sometimes used as poniards. Choroti. Gran Chaco. Bolivia. 3/4. Riksm. 03. 3. 181.

For cutting up game, the Choroti use knives made of sharp-edged cane splinters. Knives and poniards, of cane, have been very extensively used in South America. Even among tribes possessing knives of stone or metal, to this day knives of cane are being used in certain ritual ceremonies. Thus Bolinder, for example, mentions that among the Ijca Indians of Northern Columbia, in childbirth the navel is cut with a cane splinter.[3]

The Choroti do not, however, possess only weapons of offence, but also weapons of defence. When on the subject on dress, I have described the mail shirts, made of closely woven, thick

[1] Nordenskiöld (11), p. 55 and 56; also (13), p. 81.
[2] von Rosen (1), pp. 203 and 204.
[3] Bolinder (1), pp. 240 and 243.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

wife. Not infrequently it happens that two or more girls become enamoured of the same man. Then fierce fights are often fought out between the rivals, who in these encounters sometimes use knuckle-dusters or sharp-pointed bone awls (see fig. 111). The Choroti girls have a somewhat peculiar way of demonstrating their tender feelings towards their beloved; they do not kiss him, but scratch him with their nails and spit in his face![1]

When a woman has been taken to wife by the man she has chosen, the latter comes to live in her village, at least for some period of time.[2]

Division of labour as between the sexes among the Choroti.

M = men; W = Women.

Rearing and care of livestock	M[3]	W[3]
Fire kindling, by drilling	M	
Collecting fuel		W
" wild-growing, edible plants		W
" wild honey	M[3]	
Hunting and catching game	M	
Preparing the food	M[4]	W
Cultivation of food plants	M	W
Wool and cotton spinning		W
Sewing	M[3]	W[3]
Manufacture of feather ornaments	M	
" " articles of calabash	M	
" " pottery		W
" " articles of leather	M	W[3]
" " fishing nets	M	
" " articles of wood	M	
" " weapons	M	
" " bags, knitted of caraguata yarn		W
" " " " woollen "		W
Load carrying		W
Hut building	M	W
Weaving		W[3]
Drawing and carrying water		W
Beer brewing	M[5]	W[3]

The heavier burden of work undoubtedly falls to the lot of the women. It is their business to gather edible fruits, to carry home fuel and water, to prepare the food, and, of course, also to tend the children. When the tribe is travelling, it is the women who carry the household furniture and

[1] Nordenskiöld (13), p. 81.
[2] Nordenskiöld (13), p. 83.
[3] According to Nordenskiöld (13), p. 87.
[4] Roasting the food. According to Nordenskiöld (13), p. 87.
[5] Beer fermenting, only. According to Nordenskiöld (13), p. 87.

[Text continues on p. 163]

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

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and ornaments, wearing many-coloured mantles, necklaces, ear-tubes, big ostrich plumes on the head, and having the face painted. The men form a circle round the girls with arms interlaced round each others' waists. The dance chiefly consists in jumping with both feet at once and stamping hard upon the ground to the measure of a very noisy but monotonous chant. The ceremony is called *níssammaha aséhne*, »to hurry on the girls». The expression »to hurry on» (*níssammaha*), as we shall find later, is used by the Chaco Indians in many cases where there is a question of magically influencing the course of nature for good and useful ends. Just as the Indians believe they can hurry on or promote the growth of the fruit by influencing the tree spirits and by exorcising the evil demons who are trying to blight them, so they »hurry on» the girls in the sense that by the dancing and chanting the latter are prompted to make a definitive choice of a husband, whereas at the same time evil spirits are kept away from them. Courtship and marriage, it should be noted, are of those numerous critical occasions in human life when malignant supernatural powers are believed to be more than otherwise on the alert to do harm and spoil the good designs of men, and as usual the weaker sex is supposed to be particularly exposed to them. The courting dance *Avúshe* is thus in part held with the intention of keeping off this invisible molestation, so that the girl's choice of a consort for life may take place under good auspices.

A man who is not taken away from the dance by a girl has no possibility of getting either a temporary paramour or a wife. The matter wholly depends on the girls, and there are of course always men who for one reason or another are despised. I sometimes noticed such unfortunate lovers at the Choroti dances. Their experience had led them not to take part in the dances; they were sitting in a hut close by, eagerly shaking the rattle gourd (*pelíte*), as they said, »to hurry on the girls» and thus possibly to have better luck in the future. Since the women are much fewer in number than the men, it is necessary that some men are obliged to remain bachelors all their lives. These men were ridiculed not only by the women but also by their more fortunate brethren. On the other hand, there are no unmarried women, and even widows soon remarry unless they are very old.

The men may try to attract the girls at the dances by their beautiful ostrich plumes, necklaces, and other ornaments, but these means of attraction certainly only play a subordinate part. The Choroti woman evidently expects something more of a man whom she thinks of marrying

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C
581 or whom she only wants for a temporary lover. Above all she wants as a
584 husband a man who treats her well and possesses the qualities necessary to support the future family. Since the Choroti to a great extent live by fishing, skill in this art is naturally reckoned among a man's most praiseworthy qualities. Importance is also attached to skill in gardening and hunting. Consequently, when a young man is courting a girl, he tries to gain her favour by presenting her with fish in abundance. I was told that when several men are courting the same girl — which naturally is often the case — the man who brought her the largest quantities of fish had the greatest chance of gaining preference.

C
581 Thus among the Choroti, marriage is from a man's point of view an important matter. When the parents send out their young son to take
593 part in the dances and to find a wife, they follow his undertaking with the keenest interest. Every evening the father shakes his magical rattle gourd (*pelíte*) in order to promote his son's enterprise and »hurry on» the girls on his behalf. When the rattle gourd is used for such practical purposes the ceremony is called *nekeńlitse símä*, which literally means: »to shake the rattle to get (or obtain) something».

C
585 Apart from these ceremonies in connection with courtship, there are no particular marriage rites, except the necessary drinking-bout which accompanies all family feasts and in which only the men take part. The young couple are without any further ceremony regarded as married, but marriage is not fully complete until a child is born.

M
[171] Among the *Mataco*, marriages are not particularly contracted in con-
[562] nection with the dances, but conditions are the same as among the Choroti in so far as the women play the active part both as concerns incidental
527 amorous relations and marriages proper. The great drinking-feasts dur-
836 ing the algaroba season are the occasions when a woman enters into tem-
584 porary or permanent relation with a man. When the men are intoxicated, the girls avail themselves of the opportunity, seize the youths whom they like by the hands and take them to their houses where they spend the night with them. These liaisons lead in many cases to real marriages.

M
585 When marriage is agreed upon, it is celebrated with the usual ceremonies
789 which have a religious significance. The drum, the most important magical instrument of the Mataco, is beaten the whole night with a view to
535 keeping off evil spirits from the couple. Similarly, a ceremonial dance, called *Nahútsak*, is performed in the evening. It is a ring-dance much like the marriage dance *Avúshe* of the Choroti. The couple being married are seated in the middle of the ring and their friends dance and chant around

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142 The skin colour in adult Choroti is brown, newly born children have light yellowish-brown skin, but it soon gets darker, so that even rather young children, figs. 21 and 22, seem to be of a very dark colour. The hair is lank, and the iris dark brown. From Lehmann-Nitsche's and my own anthropological observations I have compiled the following table.

The Choroti: some physical features.

[141]

Sex	Average height, cm	Shape of skull	Skin colour, von Luschan's scale	Hair colour, Fischer's scale	Iris, Martin's scale
Men	[1] 161.6 [2] 170.0	Dolichocephalic, predominantly	22, predominantly	4, predominantly	4, predominantly
Women	[3] 153.3 [4] 152.0	Dolichocephalic, predominantly	18, predominantly	4, predominantly	4, predominantly

145 [805] As the Choroti do not keep count of the age of their children, nor of their own, it is impossible to obtain, by direct questioning, from these Indians any information as to the relation of puberty to age in individuals. One of our Creole servants, who had lived a long time on the Chaco, has, however, told me that Indian children arrive early at physical [582] development (fig. 24), and that the girls are considered marriageable after their first menstruation, which, according to my informant, occurs at the age of ten to twelve. And, according to the same person's statement, the boys are ripe for marrying at the age of about fifteen. The blossoming-time of the women is very brief, and as they grow old they often become repulsively ugly. It is notable that the old women, as a rule, were thin of body, whilst elderly men often were inclined to stoutness.

[621] 361 The Choroti live together in villages. The selection of the village site depends primarily on the supply of water and food, and, in the case of cattle owning Indians, also on grazing conditions. Often the huts are built alongside shade-giving trees (fig. 25). The fan palm found in the [824] Chaco (Copernicia australis), (fig. 10) being valuable to the Indians on account of its easily worked wood, its pith (used for food), and its leaves

[1] Acc. to Lehmann-Nitsche's measurements of 20 individuals.
[2] » » the Author's » » 10 »
[3] » » Lehmann-Nitsche's » » 10 »
[4] » » the Author's » » 13 »

[text continues on p. 37]

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CHAPTER IV.

Courtship and marriage.

A salient feature in the social life of all Chaco tribes, and one in which they differ considerably from the tribes whom I learned to know in tropical South America, is the great sexual liberty allowed to young people before marriage. As soon as a girl has passed her first menstruation she is considered free to choose for herself occasional lovers, and generally she does not delay in making use of this right. This free sexual life is particularly indulged in during the algaroba season, in connection with the feasts and dances which then take place. The girls avoid the natural consequences of this sexual license by abortion or infanticide, customs which are also approved by the social morality of the Chaco Indians. Having enjoyed this free life for some years, the girl ultimately decides to marry, and then as a rule becomes a faithful wife as long as the husband does not himself neglect his duties towards her. This general state of things is met with all along the Pilcomayo, although customs of course differ to some extent in different tribes. I shall first relate the customs practised among the Choroti in courtship and marriage.

The *Choroti* are a strictly monogamous people. During my stay among the different Choroti tribes I never found a single case of polygamy, and I was moreover able to confirm that polygamy is strongly disapproved of by custom and the social morality of the people. It is first of all rendered impossible by the jealousy of the women who, as I have mentioned before, have a decisive influence in matters of love and take the first step towards contracting marriage.

Courtship therefore among the Choroti assumes rather a peculiar form, inasmuch as the girls play the active, and the young men the passive part. Marriages are as a rule contracted during the algaroba season from November to March, when there is a good supply of food in the villages and

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Toba SI 12
Choroti SK 6

T 591 also belong to the mother's tribe or clan. Although the Tobas have thus the maternal system of descent, this »mother-right», as already pointed out, does not amount to real matriarchy or mother-rule, as among the Choroti.

C 582 As to restrictions in contracting marriage, there seems to exist among most tribes a native law prohibiting unions between very near blood-relations. Among the Choroti, and probably the Ashluslay and Mataco, first cousins are not allowed to marry. The Choroti only gave me the explanation that cousins are »like brother and sister»; marriages between them would be looked upon with the same horror as if a brother and a sister married each other. Of the Tobas I was told that they have no objection T 582 to cousins marrying each other. Still, considering the similarity of the social customs and institutions of the Chaco tribes, I doubt whether the same restriction as to cousin-marriage which exists among the lower tribes has not formerly existed among the Tobas also. — Since the families belonging to the same village community are generally closely related to each M 582 other, marriages do not as a rule take place between persons of the 621 same village. On the other hand, marriages are generally, although not exclusively, contracted between persons belonging to different village communities of the same sub-tribe. The outer circle within which marriage is allowed is very wide. The Chaco Indians have no objections to marrying women of foreign tribes, and wars are often waged for the very purpose of stealing young women who are afterwards married by the victors.

C M T 586 Divorce occurs in all Chaco tribes, although more frequently among the Tobas than among the primitive Choroti and Mataco. A Toba, Mataco, or Choroti man may leave his wife merely for the sake of marrying a younger and prettier one, since conjugal fidelity is not a prominent virtue of married men in the Chaco. Still, such cases are rather exceptional in Choroti society. The very fewness of the women and the difficulty of getting a new wife instead of the one divorced naturally makes divorce difficult as far as it depends on the man. In all the tribes, on the other hand, a woman may leave her husband if he proves unfaithful, if he treats her badly, or if he is lazy and unable to support her. Of the Toba women particularly I noticed that they left their husbands for very trifling reasons. Unfaithfulness on the part of married women seemed to me to be a common thing among the Tobas, but this may in part be a consequence of the unfavourable influence which the contact with civilization has exerted upon the social morality of these Indians. As for the husband, adultery

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C 562 C [162] C [847] C 562 462 591 583 M 562 584

are due — at least in part — to geographical causes. As to the Choroti, it is to be noticed that among them the women in general have great social importance, to such an extent in fact, that we may speak of a real gynaecocracy. This is in the first place due to the numerical disproportion between the sexes which, at least at present, exists in this tribe. The causes of this phenomenon are difficult to assign; there is for instance, no general custom of killing new-born female children which would account for it. Infanticide is indeed practised in the case of monstrous children and twins, but it has reference to male children as well as to female. Female children are appreciated perhaps more than male children, for the very reason that women are so few in the Choroti society. Whatever the real cause of the numerical paucity of the women, it is this fact which explains their social influence. Besides this, we have to take into consideration the strict division of labour between the sexes existing among the Indians. For instance, sowing and planting, the carrying of fuel, the gathering of wild fruits, the brewing of intoxicating drinks, and a good deal of other home industries are wholly or chiefly incumbent on the women. This to the Indians means that no man *can* successfully do work which custom prescribes shall be done by a woman. A consequence of this is that particular importance is ascribed to female work as such and that women in general are held in great esteem. From this point of view we must also explain the custom that a man who marries must go and live with his wife's family. It is mainly due to the reluctance of her parents to separate from her on account of the work she performs. Among the Choroti no compensation is given for a bride, because no bargaining of any kind whatever takes place between the members of the tribes. Instead of that, custom prescribes that the young husband shall render services to her parents, which is only possible if he stays with the family of his spouse for a longer or shorter time. In this way matrilocal marriage in the Choroti and other Chaco tribes seems to me to have originated, although the Choroti at any rate are not now aware of these services being really obligatory and a form of compensation for the wife. Marriage among them appears now as a wholly private affair based upon the voluntary agreement of both parties. But where a matrilocal marriage has developed, the children are naturally looked upon as belonging in the first place to the mother and to her tribe or clan, whereas the husband's importance as a family father is only secondary.

The same kind of »mother-right» and gynaecocracy also prevails, or prevailed formerly, among the *Mataco* Indians who, for instance, allow

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CHAPTER IV.

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[5-]

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584 the Indians live a happy and joyous life. We may therefore say that this is the proper »pairing-season» of the Chaco tribes, and particularly of the Choroti. At other times of the year, when fruit becomes scarce and life to the Indians is often a hard struggle for existence, they are little inclined
584 for merry-making, love, and marriage. In October, when the very nutri-
535 tive chañar fruit ripens, the Chaco Indian is, as it were, revived, and a few weeks later, when the algaroba and the tusca trees give their much
836 appreciated fruit, his life is at its gayest, manifesting itself of course in his sexual interests also. Those young men and women who want to be married then wander about from one village to the other, where dances take place. In each village three dances, those called *Jóhlōki*, *Ahlénta*, and *Avúshe*, are performed on four successive evenings. Free sexual intercourse is connected with these dances, and the girls play an important rôle in them although they do not actively take part in the entertainment. The dances of the Chaco Indians are mainly entertainments of the men. The girls generally content themselves with merely looking at the dancing youths, making their choice among them. Incidentally however a girl may be seen dancing for a while behind a man whom she particularly likes with her hands laid upon his shoulders, and after the dance she takes him away and keeps him for that night. This is something one may notice after each dance, and thus the Choroti dances during the »season» often have the character of real sexual orgies. The last *Avúshe*-dance on the fourth evening is, however, supposed to be decisive as far as marriage is concerned; those girls who have found the men whom they want to marry then keep them not only for the night, but for ever. The young man is taken to the village and house of the girl, where he stays as her husband, becoming a member of his wife's family.

584 The *Avúshe* may therefore be called the proper courtship and marriage
535 dance of the Choroti. The very name of the dance is interesting from this point of view. The Choroti word *avúshe* means 'vulture' — not the black vulture, but another kind common in the Chaco[1]) — and the name therefore may be translated as »the Vulture-dance». The idea of the Indians seems to be that just as the vultures jump and dance round their prey, the dead animal, so the Choroti men in the *Avúshe* dance jump round the girls trying to »conquer» them. The girls at this dance, it should be understood, stand within the ring formed by the dancing men. All the young men who take part in the dance are dressed in their best clothes

[1]) *Polyborus vulgaris.*

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and ornaments, wearing many-coloured mantles, necklaces, ear-tubes, big ostrich plumes on the head, and having the face painted. The men form a circle round the girls with arms interlaced round each others' waists. The dance chiefly consists in jumping with both feet at once and stamping hard upon the ground to the measure of a very noisy but monotonous chant. The ceremony is called *nissammaha aséhne*, »to hurry on the girls». The expression »to hurry on» (*nissammaha*), as we shall find later, is used by the Chaco Indians in many cases where there is a question of magically influencing the course of nature for good and useful ends. Just as the Indians believe they can hurry on or promote the growth of the fruit by influencing the tree spirits and by exorcising the evil demons who are trying to blight them, so they »hurry on» the girls in the sense that by the dancing and chanting the latter are prompted to make a definitive choice of a husband, whereas at the same time evil spirits are kept away from them. Courtship and marriage, it should be noted, are of those numerous critical occasions in human life when malignant supernatural powers are believed to be more than otherwise on the alert to do harm and spoil the good designs of men, and as usual the weaker sex is supposed to be particularly exposed to them. The courting dance *Avúshe* is thus in part held with the intention of keeping off this invisible molestation, so that the girl's choice of a consort for life may take place under good auspices.

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2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK 6

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M 585 789 535 When marriage is agreed upon, it is celebrated with the usual ceremonies which have a religious significance. The drum, the most important magical instrument of the Mataco, is beaten the whole night with a view to keeping off evil spirits from the couple. Similarly, a ceremonial dance, called *Nahútsak*, is performed in the evening. It is a ring-dance much like the marriage dance *Avúshe* of the Choroti. The couple being married are seated in the middle of the ring and their friends dance and chant around

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2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI12
Chorot SK6

T 591 also belong to the mother's tribe or clan. Although the Tobas have thus the maternal system of descent, this »mother-right», as already pointed out, does not amount to real matriarchy or mother-rule, as among the Choroti.

C 582 As to restrictions in contracting marriage, there seems to exist among most tribes a native law prohibiting unions between very near blood-relations. Among the Choroti, and probably the Ashluslay and Mataco, first cousins are not allowed to marry. The Choroti only gave me the explanation that cousins are »like brother and sister»; marriages between them would be looked upon with the same horror as if a brother and a sister married each other. Of the Tobas I was told that they have no objection T 582 to cousins marrying each other. Still, considering the similarity of the social customs and institutions of the Chaco tribes, I doubt whether the same restriction as to cousin-marriage which exists among the lower tribes has not formerly existed among the Tobas also. — Since the families belonging to the same village community are generally closely related to each other, marriages do not as a rule take place between persons of the same village. On the other hand, marriages are generally, although not exclusively, contracted between persons belonging to different village communities of the same sub-tribe. The outer circle within which marriage is allowed is very wide. The Chaco Indians have no objections to marrying women of foreign tribes, and wars are often waged for the very purpose of stealing young women who are afterwards married by the victors.

C M T 586 Divorce occurs in all Chaco tribes, although more frequently among the Tobas than among the primitive Choroti and Mataco. A Toba, Mataco, or Choroti man may leave his wife merely for the sake of marrying a younger and prettier one, since conjugal fidelity is not a prominent virtue of married men in the Chaco. Still, such cases are rather exceptional in Choroti society. The very fewness of the women and the difficulty of getting a new wife instead of the one divorced naturally makes divorce difficult as far as it depends on the man. In all the tribes, on the other hand, a woman may leave her husband if he proves unfaithful, if he treats her badly, or if he is lazy and unable to support her. Of the Toba women particularly I noticed that they left their husbands for very trifling reasons. Unfaithfulness on the part of married women seemed to me to be a common thing among the Tobas, but this may in part be a consequence of the unfavourable influence which the contact with civilization has exerted upon the social morality of these Indians. As for the husband, adultery

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
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M T C 586

casually committed with another man rarely caused him to divorce his wife; divorce took place only when she continued to maintain illicit relations with other men. The fact that among the Tobas polygamy is sanctioned by custom seems to have a tendency to make matrimonial unions looser than among the monogamous Choroti. But in all tribes the rule is that marriage lasts for life.

C 593 152

If the women in general seemed to be more faithful in marriage than the men, this was in part due to the fact that in the former jealousy was

T [291-301]

Young Toba woman. Bolivian Chaco.

a very prominent quality. After the Choroti girl has made her choice of a partner, she faithfully keeps to him and jealously watches his conduct towards other women. If she suspects him of being unfaithful, she will soon remind him of his duty towards his own wife. If she discovers him in illicit practices, for instance in another man's house, or taking part in the dances, she at once seizes him by the hair and drags him to his own home. This is in fact the way in which the Choroti women generally treat their unfaithful husbands, that is to say, by seizing them by the long hair and taking them home. I never noticed that a man treated in this somewhat rough way made any resistance. The submissive attitude of

2: Karsten E-5 (1911-1913)1932 S17 Mataco

Choroti SK 6

and ornaments, wearing many-coloured mantles, necklaces, ear-tubes, big ostrich plumes on the head, and having the face painted. The men form a circle round the girls with arms interlaced round each others' waists. The dance chiefly consists in jumping with both feet at once and stamping hard upon the ground to the measure of a very noisy but monotonous chant. The ceremony is called *nissammaha aséhne*, »to hurry on the girls». The expression »to hurry on» (*nissammaha*), as we shall find later, is used by the Chaco Indians in many cases where there is a question of magically influencing the course of nature for good and useful ends. Just as the Indians believe they can hurry on or promote the growth of the fruit by influencing the tree spirits and by exorcising the evil demons who are trying to blight them, so they »hurry on» the girls in the sense that by the dancing and chanting the latter are prompted to make a definitive choice of a husband, whereas at the same time evil spirits are kept away from them. Courtship and marriage, it should be noted, are of those numerous critical occasions in human life when malignant supernatural powers are believed to be more than otherwise on the alert to do harm and spoil the good designs of men, and as usual the weaker sex is supposed to be particularly exposed to them. The courting dance *Avúshe* is thus in part held with the intention of keeping off this invisible molestation, so that the girl's choice of a consort for life may take place under good auspices.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

wife. Not infrequently it happens that two or more girls become enamoured of the same man. Then fierce fights are often fought out between the rivals, who in these encounters sometimes use knuckle-dusters or sharp-pointed bone awls (see fig. 111). The Choroti girls have a somewhat peculiar way of demonstrating their tender feelings towards their beloved; they do not kiss him, but scratch him with their nails and spit in his face![1]

When a woman has been taken to wife by the man she has chosen, the latter comes to live in her village, at least for some period of time.[2]

Division of labour as between the sexes among the Choroti.

M = men; W = Women.

Rearing and care of livestock	M[3]	W[3]
Fire kindling, by drilling	M	
Collecting fuel		W
» wild growing, edible plants		W
» wild honey	M[3]	
Hunting and catching game	M	
Preparing the food	M[4]	W
Cultivation of food plants	M	W
Wool and cotton spinning		W
Sewing	M[5]	W[5]
Manufacture of feather ornaments	M	
» » articles of calabash	M	
» » pottery		W
» » articles of leather	M	W[5]
» » fishing nets	M	
» » articles of wood	M	
» » weapons	M	
» » bags, knitted of caraguata yarn		W
» » » » » woollen »		W
Load carrying		W
Hut building	M	W
Weaving		W[5]
Drawing and carrying water		W
Beer brewing	M[5]	W[5]

The heavier burden of work undoubtedly falls to the lot of the women. It is their business to gather edible fruits, to carry home fuel and water, to prepare the food, and, of course, also to tend the children. When the tribe is travelling, it is the women who carry the household furniture and

[1] Nordenskiöld (13), p. 81.
[2] Nordenskiöld (13), p. 83.
[3] According to Nordenskiöld (13), p. 87.
[4] Roasting the food. According to Nordenskiöld (13), p. 87.
[5] Beer fermenting, only. According to Nordenskiöld (13), p. 87.

[Text continues on p.163]

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
Choroti SK 6

very qualities which the Indians appreciate in their leaders. He was valiant, cunning, and eloquent, and, being a great warrior, had provided his people with firearms which made the Tobas superior in war to all other Chaco tribes and dangerous enemies even to the whites.

The Eakachi, as is customary in the Chaco, hold their assemblies under a shady algaroba tree, generally at the time of the new moon. Besides watching the conduct of their chiefs, they have to deliberate questions of war and peace and to appoint an extraordinary chief when an attack against an enemy is planned. In addition, they act as judges or arbitrators in quarrels and fights between the men.

A social feature characteristic of all Chaco tribes is the relative matriarchy or »mother-right» prevailing among them. Descent is traced through the female, the child being supposed to belong to the mother's, and not to the father's, tribe or clan. Closely connected with this idea is the custom prevailing among most matriarchal peoples, that when a man marries, he stays with his wife's family, becoming a member of her clan. All these features are found among the Pilcomayo tribes, but particularly among the *Choroti* where »mother-right» has developed into real mother-rule. Thus in those parts of the Choroti country where they are neighbours with other tribes and intermarriage takes place, it is the rule that if the woman is of the Choroti tribe the children become members of that tribe, whereas, if a Choroti man marries a woman of another tribe, he himself and the children become members of that tribe. This was particularly noticeable in regard to the Ashluslay in the South with whom the Choroti frequently intermarry. Thus the »great chief» of the Choroti living near the fort Guachalla, the old Atamo, was on his father's side of Ashluslay descent, but his mother being a Choroti woman he had himself become a Choroti.

The »mother-right» of the Choroti is not carried to such an extreme that for instance the maternal uncle or some other relative on the mother's side is regarded as the guardian of the children. Among the Choroti both parents are the guardians of the child although, as in other matters, the mother has always more to say. Nor does it imply that parentage is wholly attributed to the mother. On the contrary, the custom of couvade, as it is observed by the Choroti, shows that this maternal people is well aware of the father's great rôle in the procreation of children. The »mother-right» of the Choroti and of other Chaco tribes is in fact only a secondary phenomenon, evidently dependent on the social conditions which have developed among the tribes in this country, and which in their turn

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

C 562 C [162] C [847] C 562 462 591 583 M 562 584

are due — at least in part — to geographical causes. As to the Choroti, it is to be noticed that among them the women in general have great social importance, to such an extent in fact, that we may speak of a real gynaecocracy. This is in the first place due to the numerical disproportion between the sexes which, at least at present, exists in this tribe. The causes of this phenomenon are difficult to assign; there is for instance, no general custom of killing new-born female children which would account for it. Infanticide is indeed practised in the case of monstrous children and twins, but it has reference to male children as well as to female. Female children are appreciated perhaps more than male children, for the very reason that women are so few in the Choroti society. Whatever the real cause of the numerical paucity of the women, it is this fact which explains their social influence. Besides this, we have to take into consideration the strict division of labour between the sexes existing among the Indians. For instance, sowing and planting, the carrying of fuel, the gathering of wild fruits, the brewing of intoxicating drinks, and a good deal of other home industries are wholly or chiefly incumbent on the women. This to the Indians means that no man *can* successfully do work which custom prescribes shall be done by a woman. A consequence of this is that particular importance is ascribed to female work as such and that women in general are held in great esteem. From this point of view we must also explain the custom that a man who marries must go and live with his wife's family. It is mainly due to the reluctance of her parents to separate from her on account of the work she performs. Among the Choroti no compensation is given for a bride, because no bargaining of any kind whatever takes place between the members of the tribes. Instead of that, custom prescribes that the young husband shall render services to her parents, which is only possible if he stays with the family of his spouse for a longer or shorter time. In this way matrilocal marriage in the Choroti and other Chaco tribes seems to me to have originated, although the Choroti at any rate are not now aware of these services being really obligatory and a form of compensation for the wife. Marriage among them appears now as a wholly private affair based upon the voluntary agreement of both parties. But where a matrilocal marriage has developed, the children are naturally looked upon as belonging in the first place to the mother and to her tribe or clan, whereas the husband's importance as a family father is only secondary.

The same kind of »mother-right» and gynaecocracy also prevails, or prevailed formerly, among the *Mataco* Indians who, for instance, allow

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 80. Woman taking lice from her husband's head. Choroti on their wandering towards the Pilcomayo. Dry soil forest region between Caiza and Fort Crevaux, Gran Chaco, Bolivia. Photo, E. v. K.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

equipment in large carrying-nets and bags; at such times the men march along unburdened, carrying in their hands only bow and arrows. This is, however, easily accounted for, as on the trek the men have always to be prepared to kill game for procuring food. If they, like the women, were hampered by heavy loads, they would practically have no chance at all of taking a ready arrow-shot at game encountered on the march. 462

I never once saw grown women amusing themselves with any games or sports, whereas this is frequently the case with the men. The chief occupations of the latter consist of hunting, fishing, the gathering of wild honey and the manufacturing of various weapons and implements (see the above table of division of labour as between the sexes). The men give considerably less time to actual labour than the women, and to me it seemed as if the life of Choroti wives was hard and laborious, whilst that of the men, as a rule, was pretty light and easy-going.

Nevertheless, the men are by no means hard or cruel to their wives, and it appeared to me as if the women took it as a matter of course that they had to work for their husbands and children in the way they did, and, generally speaking, they seemed quite content with their lot in life. Indeed, I noticed many instances of real domestic happiness. 593

Parents bear great love to their children. These, when quite small, are carried by their mothers in a broad strip, or piece, of cloth in the way fig. 180 shows. The Choroti do not have many children; it is only seldom that the number of children exceeds four. According to Nordenskiöld, they are given names only when old enough to answer to them. The same author has noted down the following Choroti names, of which the first three are men's names, and the remainder women's names: Yóseliancé (the killer of foxes), Hotenic (Mataco), Éstiáhua (a gallinaceous bird), Hayku (not sweet), Kosoki (suffering from skin eruptions), Aséshnialo (women in plenty).[1] [854] [462] [551] [553]

Parental authority does not amount to much, and actual bringing up and discipline is entirely out of the question. In cases where parents attain so great an age that they become irksome to their children, it is not unknown for the latter to kill them. Nordenskiöld's interpreter, Flores, once witnessed a Choroti man burning an old and decrepit woman alive. Old men and women, who are suspected of working evil by witchcraft, are sometimes burned alive, and therefore it is possible that belief in the 888 754 683

[1] Nordenskiöld (13), p. 85.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Fig. 180. Husband and wife, with baby. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

supernatural, of some kind or other, plays a leading part when children kill their aged parent.

Every village is ruled by a chief or headman. According to the observations of some investigators, these headmen do not nowadays possess any great power or authority, but among the Choroti whom I visited in 1901, the chief's authority was by no means inconsiderable. For example, it only needed my arranging with him that the Indians were to carry out a certain piece of work, and the work would be done. For the work performed by the Indians I paid the chief in goods, which he allotted among them as he himself thought fit, as it appeared. In war, each village contingent is under the leadership of their headman. It was stated by the soldiers of Fort Crevaux that all Choroti used to be under a paramount chief, whose authority over all the other chiefs principally consisted in his being entitled to taking chief command in war. The office of village headman as a rule descends from father to son.

That certain Choroti chiefs used to be held in greater respect than others was made evident to us at a visit we made to a sugar plantation on our return journey to Salta. A large number of Choroti had just then

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
Choroti SK 6

very qualities which the Indians appreciate in their leaders. He was valiant, cunning, and eloquent, and, being a great warrior, had provided his people with firearms which made the Tobas superior in war to all other Chaco tribes and dangerous enemies even to the whites.

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2: Karsten E-5 (1911-1913)1932 SI7 Mataco/SI7

Choroti SK6

CHAPTER IV.

Courtship and marriage.

A salient feature in the social life of all Chaco tribes, and one in which they differ considerably from the tribes whom I learned to know in tropical South America, is the great sexual liberty allowed to young people before marriage. As soon as a girl has passed her first menstruation she is considered free to choose for herself occasional lovers, and generally she does not delay in making use of this right. This free sexual life is particularly indulged in during the algaroba season, in connection with the feasts and dances which then take place. The girls avoid the natural consequences of this sexual license by abortion or infanticide, customs which are also approved by the social morality of the Chaco Indians. Having enjoyed this free life for some years, the girl ultimately decides to marry, and then as a rule becomes a faithful wife as long as the husband does not himself neglect his duties towards her. This general state of things is met with all along the Pilcomayo, although customs of course differ to some extent in different tribes. I shall first relate the customs practised among the Choroti in courtship and marriage.

The *Choroti* are a strictly monogamous people. During my stay among the different Choroti tribes I never found a single case of polygamy, and I was moreover able to confirm that polygamy is strongly disapproved of by custom and the social morality of the people. It is first of all rendered impossible by the jealousy of the women who, as I have mentioned before, have a decisive influence in matters of love and take the first step towards contracting marriage.

Courtship therefore among the Choroti assumes rather a peculiar form, inasmuch as the girls play the active, and the young men the passive part. Marriages are as a rule contracted during the algaroba season from November to March, when there is a good supply of food in the villages and

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK 6

C 581 584 or whom she only wants for a temporary lover. Above all she wants as a husband a man who treats her well and possesses the qualities necessary to support the future family. Since the Choroti to a great extent live by fishing, skill in this art is naturally reckoned among a man's most praiseworthy qualities. Importance is also attached to skill in gardening and hunting. Consequently, when a young man is courting a girl, he tries to gain her favour by presenting her with fish in abundance. I was told that when several men are courting the same girl — which naturally is often the case — the man who brought her the largest quantities of fish had the greatest chance of gaining preference.

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casually committed with another man rarely caused him to divorce his wife; divorce took place only when she continued to maintain illicit relations with other men. The fact that among the Tobas polygamy is sanctioned by custom seems to have a tendency to make matrimonial unions looser than among the monogamous Choroti. But in all tribes the rule is that marriage lasts for life.

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If the women in general seemed to be more faithful in marriage than the men, this was in part due to the fact that in the former jealousy was

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Young Toba woman. Bolivian Chaco.

a very prominent quality. After the Choroti girl has made her choice of a partner, she faithfully keeps to him and jealously watches his conduct towards other women. If she suspects him of being unfaithful, she will soon remind him of his duty towards his own wife. If she discovers him in illicit practices, for instance in another man's house, or taking part in the dances, she at once seizes him by the hair and drags him to his own home. This is in fact the way in which the Choroti women generally treat their unfaithful husbands, that is to say, by seizing them by the long hair and taking them home. I never noticed that a man treated in this somewhat rough way made any resistance. The submissive attitude of

2: Karsten E-5 (1911-1913)1932 SI7 Mataco
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C 593 152 [691] the men in such cases showed to what extent the women dominate the home life of the Choroti. There is not, among these Indians, any punishment for adultery as such, for the very reason that punishment in any form is unknown within the tribe. — Among the Tobas again a man may beat his wife if she commits adultery.

C 578 152 On the other hand, if a Choroti woman gets to know of a female rival, the result will in all probability be a fight between the two women, who use a sort of boxing glove of hide, or small daggers consisting of the legbone of a deer pointed at the end. The same custom is followed by the Mataco and the Toba women, in whom jealousy is likewise a prominent quality. Among the Tobas particularly, fights between girls who have fallen in love with the same man are of frequent occurrence. Similarly, if a married woman gets to know that her husband maintains illicit relations with another woman, the consequence is in most cases a fight between the legitimate wife and the rival, and these fights are not seldom sanguinary. The one even tries to kill the other which, of course, she very seldom succeeds in doing. Such fights are continued for several hours, often for a whole night, during which the two enraged women beat each other with the hands, scratch each other with the nails, or wound each other with big cactus thorns which they have tied at the wrists.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

CHAPTER VI.

The Choroti (6). Family Life and Social Organization. Superstition. Illness and Death.

Marriage customs. Division of labour. Chiefs. Medicine men. Belief in evil spirits. Magic means of protection. Illness. Exorcism. Fairy darts. Physical therapeutics. Death. Burial. Belief in a future existence.

A Choroti man, as a rule, has only one wife, but among the part of 595
the tribe that has been in close intercourse with the Chiriguano, it is not an uncommon thing for the chiefs to possess several wives, as, for instance, the chief of the Choroti Indians living in the neighbourhood of Tatarenda (close on the border of the Chiriguano country), who had no less than three spouses. In fig. 178 is seen this chief holding one of his sons by the hand; to the left of the boy there is the chief's »number-one» wife, grown old and ugly, and on the man's right is his second wife, the mother of the boy. His third wife, who is not included in the picture, was quite a young girl.

Among the Choroti it is the women who take the initiative in amor- 832
ous relations. As a rule, this is done at dances which take place in seasons when food is abundant, and the Indians accordingly find it fitting to dance and amuse themselves. In his book »Indianliv», Nordenskiöld has given a very vivid description of such nocturnal mating dances, and in the preceding chapter I have (pp. 149, 150) quoted from him.

When a girl has reached mature age, she enters into free and un- 836
restricted relations with now one, now another, of the men, but finally she finds for herself a partner for life (see fig. 179). Having once taken this step, she usually keeps faithful to her husband. If a Choroti girl should happen to become pregnant, she sets about procuring abortion, and in [847]
that way she as a rule avoids having any children before becoming a

wife. [p. 159]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 179. A girl, and the lover she has chosen for herself. Choroti. Gran Chaco, Bolivia. Photo. E. v. R.

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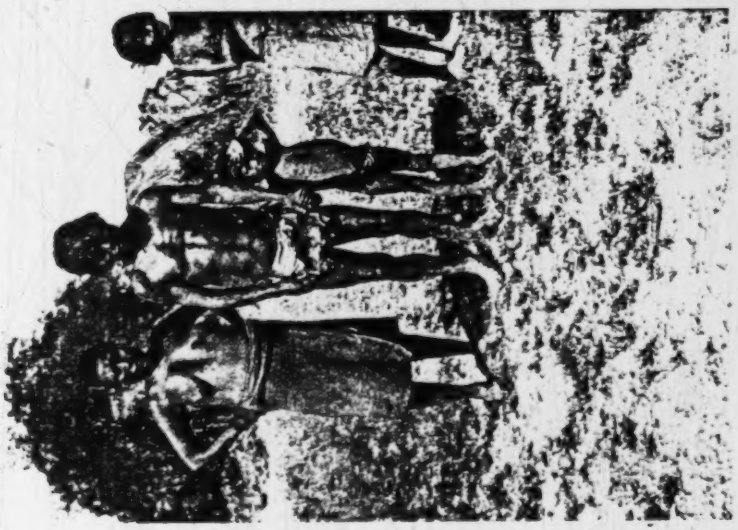

Fig. 178. A chief, with his son and two of his three wives. Choroti. Gran Chaco, Bolivia. Photo. E. v. R.

[p. 162 is blank]

2: Karsten E-5 (1911-1913)!932 SI7 Mataco SI7

Choroti SK6

CHAPTER IV.

Courtship and marriage.

A salient feature in the social life of all Chaco tribes, and one in which they differ considerably from the tribes whom I learned to know in tropical South America, is the great sexual liberty allowed to young people before marriage. As soon as a girl has passed her first menstruation she is considered free to choose for herself occasional lovers, and generally she does not delay in making use of this right. This free sexual life is particularly indulged in during the algaroba season, in connection with the feasts and dances which then take place. The girls avoid the natural consequences of this sexual license by abortion or infanticide, customs which are also approved by the social morality of the Chaco Indians. Having enjoyed this free life for some years, the girl ultimately decides to marry, and then as a rule becomes a faithful wife as long as the husband does not himself neglect his duties towards her. This general state of things is met with all along the Pilcomayo, although customs of course differ to some extent in different tribes. I shall first relate the customs practised among the Choroti in courtship and marriage.

The *Choroti* are a strictly monogamous people. During my stay among the different Choroti tribes I never found a single case of polygamy, and I was moreover able to confirm that polygamy is strongly disapproved of by custom and the social morality of the people. It is first of all rendered impossible by the jealousy of the women who, as I have mentioned before, have a decisive influence in matters of love and take the first step towards contracting marriage.

Courtship therefore among the Choroti assumes rather a peculiar form, inasmuch as the girls play the active, and the young men the passive part. Marriages are as a rule contracted during the algaroba season from November to March, when there is a good supply of food in the villages and

2: Karsten E-5 (1911-1913)1932 S17 Mataco

Choroti SK6

necessity of fishing also at that time compels them to stay near the river. 614
But as soon as the rainy season sets in and the algaroba, tusca, and other 361
fruits begin to ripen, the Indians take up their abode in the forest close by some small lagoon or a rare water-hole several leagues from the river, spending most of their »summer« time in drinking algaroba beer, feasting, and dancing. The Indians of the Guachalla region form the main bulk of the Choroti tribe and number about a thousand individuals. Their [648]
immediate neighbours in the south are the Ashluslay, to whom the Choroti are closely related in their culture. There is much communication between the two tribes and intermarriage is frequent. Thus the chief of the Choroti, the old Ātamo, was on his father's side of Ashluslay descent, but since [611]
mother-right prevails among the Chaco Indians, he had become a member of the Choroti tribe.

There seems to be a certain antagonism between the different Choroti 619
tribes, in consequence of which they have very little intercourse with one 184
another. I particularly noticed such an antagonism between those Choroti who live on the river and those living in the interior. It would have been impossible for me to get a guide among the people of the chief Toula to accompany me to Anempā's tribe. Since to these Indians, who in general live to a great extent by fishing, the possession of the river is of great importance, I suppose it is originally due to this enmity that some Choroti Indians have settled in the inhospitable regions in the interior where they are found to-day. These latter even speak a somewhat differ- [197]
ent dialect of the Choroti language. Thus, one of the commonest words in the language, the word for 'house', is in the dialect of the river Indians *uk*, in the dialect of the inland Indians again *sáuo*.

The Choroti living on the river call the Choroti tribe inhabiting the interior of the Chaco *Asówa*.

The total number of the Choroti I estimate at about 2,000 or a [161]
little more.[1]) The surrounding tribes are much larger. Of these I have 648
already mentioned the southern neighbours of the Choroti, the Ashluslay, whom the Choroti call *Ahle*. Their neighbours in the north are the Tobas, whom they call *Johlōki*, and another Chaco tribe, the Tapiete, whom they call *Ohuénik*. Their neighbours in the west again are the Mataco, whom the Choroti call *Hotenúk*. They have dealings with all these tribes, although at times they have been at war with them, or at

[1]) Consequently, when Nordenskiöld estimates the Choroti at 4,000 individuals, this is a great exaggeration.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
Choroti SK 6

very qualities which the Indians appreciate in their leaders. He was valiant, cunning, and eloquent, and, being a great warrior, had provided his people with firearms which made the Tobas superior in war to all other Chaco tribes and dangerous enemies even to the whites.

The Eakachi, as is customary in the Chaco, hold their assemblies under a shady algaroba tree, generally at the time of the new moon. Besides watching the conduct of their chiefs, they have to deliberate questions of war and peace and to appoint an extraordinary chief when an attack against an enemy is planned. In addition, they act as judges or arbitrators in quarrels and fights between the men.

A social feature characteristic of all Chaco tribes is the relative matriarchy or »mother-right» prevailing among them. Descent is traced through the female, the child being supposed to belong to the mother's, and not to the father's, tribe or clan. Closely connected with this idea is the custom prevailing among most matriarchal peoples, that when a man marries, he stays with his wife's family, becoming a member of her clan. All these features are found among the Pilcomayo tribes, but particularly among the *Choroti* where »mother-right» has developed into real mother-rule. Thus in those parts of the Choroti country where they are neighbours with other tribes and intermarriage takes place, it is the rule that if the woman is of the Choroti tribe the children become members of that tribe, whereas, if a Choroti man marries a woman of another tribe, he himself and the children become members of that tribe. This was particularly noticeable in regard to the Ashluslay in the South with whom the Choroti frequently intermarry. Thus the »great chief» of the Choroti living near the fort Guachalla, the old Atamo, was on his father's side of Ashluslay descent, but his mother being a Choroti woman he had himself become a Choroti.

The »mother-right» of the Choroti is not carried to such an extreme that for instance the maternal uncle or some other relative on the mother's side is regarded as the guardian of the children. Among the Choroti both parents are the guardians of the child although, as in other matters, the mother has always more to say. Nor does it imply that parentage is wholly attributed to the mother. On the contrary, the custom of couvade, as it is observed by the Choroti, shows that this maternal people is well aware of the father's great rôle in the procreation of children. The »mother-right» of the Choroti and of other Chaco tribes is in fact only a secondary phenomenon, evidently dependent on the social conditions which have developed among the tribes in this country, and which in their turn

2. Karsten E-5 (1911-1913) 1932 SI7 Mataco SI7

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Choroti and Toba Indians is not so rich as I wished it to be, nor have I been able to realize my plan of returning later to Chaco for the sake of completing it. My next great expedition took me to the Indians of the Amazon territory. However, I think the new facts I have been able to gather relating to their general sociology, their customs and beliefs, magic dances, etc., form an important contribution to our knowledge of the intellectual culture of the Chaco Indians, so strangely neglected by earlier ethnographical travellers. In fact, the dances of the South American Indians have never before been the object of detailed studies. The Chaco culture has in many respects a character of its own, differing markedly, for instance, from the cultures peculiar to the tropical virgin forests in northern South America. Taken as a whole it is much poorer; neither the material nor the intellectual culture in these inhospitable regions has attained the same stage of development as in the regions better endowed by nature. Even the rites and ceremonies in which religious life finds expression among the Chaco Indians are comparatively few.

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The Choroti are split up into three minor tribes which are settled in different parts of the territory occupied by these Indians. One of these sub-tribes lives on the left bank of the Pilcomayo just in latitude 22° S. and a few leagues to the north of it. Their chief at the time when I lived among them was Toula. A second sub-tribe lives about ten leagues east of them in the interior of the country. In March 1912 I undertook an expedition to these Indians, who had never before been visited by a European. Two Choroti Indians accompanied me as guides, and without them it would have been impossible to find one's way through this maze of shrublike forest land, broken here and there by small open plains. Whereas the country adjacent to the great water source Pilcomayo is fairly fertile, the soil in the interior is too dry and sandy to be suitable for cultivation. Agriculture is practised by the Choroti of the interior on a still more modest scale than by the river Indians, and since they are poor hunters their life must be extremely hard at those periods of the year when there are no wild fruits. These Choroti, like the rest, live in small communities and their total number does not exceed a few hundreds. Their chief at that time was a comparatively young man called Anempä.

The third and largest Choroti tribe is found within a few leagues of Fortín Guachalla, the Bolivian military settlement mentioned before. These Indians only live on the banks of the river during the dry season, when the scarcity of water renders life in the interior impossible. The

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

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necessity of fishing also at that time compels them to stay near the river. But as soon as the rainy season sets in and the algaroba, tusca, and other fruits begin to ripen, the Indians take up their abode in the forest close by some small lagoon or a rare water-hole several leagues from the river, spending most of their »summer« time in drinking algaroba beer, feasting, and dancing. The Indians of the Guachalla region form the main bulk of the Choroti tribe and number about a thousand individuals. Their immediate neighbours in the south are the Ashluslay, to whom the Choroti are closely related in their culture. There is much communication between the two tribes and intermarriage is frequent. Thus the chief of the Choroti, the old Ātamo, was on his father's side of Ashluslay descent, but since mother-right prevails among the Chaco Indians, he had become a member of the Choroti tribe.

There seems to be a certain antagonism between the different Choroti tribes, in consequence of which they have very little intercourse with one another. I particularly noticed such an antagonism between those Choroti who live on the river and those living in the interior. It would have been impossible for me to get a guide among the people of the chief Toula to accompany me to Anempā's tribe. Since to these Indians, who in general live to a great extent by fishing, the possession of the river is of great importance, I suppose it is originally due to this enmity that some Choroti Indians have settled in the inhospitable regions in the interior where they are found to-day. These latter even speak a somewhat different dialect of the Choroti language. Thus, one of the commonest words in the language, the word for 'house', is in the dialect of the river Indians *uk*, in the dialect of the inland Indians again *sáuo*.

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[1]) Consequently, when Nordenskiöld estimates the Choroti at 4,000 individuals, this is a great exaggeration.

2: Karsten E-5 (1911-1913)1932 S17 Mataco S17
Toba S/12
Choroti SK6

SOCIAL LIFE

CHAPTER III.

Social organization. Chiefs.

M T C 619

The social organization among all tribes of the Pilcomayo is fundamentally the same, although the Tobas represent a more highly developed type of society than the Choroti, Mataco, and Ashluslay. Among all of them the »tribe» is a fairly loose social unit: being simply composed by families related to one another by blood. A clan organization in the strict sense of the word does not exist among the Chaco Indians [1]) and totemism is entirely unknown, although the beginnings of a totemistic system may be traced among the Tobas. The appellation »Ostrich-men» given to the Tobas by some of their neighbours, and certain ideas held of this bird by the Indians themselves undoubtedly point in this direction. As to the *Choroti*, I have already mentioned that they are split up into three principal sub-tribes, each occupying a special territory within the tract which these Indians regard as belonging exclusively to themselves. Although the different sub-tribes feel themselves, in a general way, parts of the same tribal unit, the Choroti people (*Jóhuaha*), there is not much communication between them and, as I have stated before, the relation between the Choroti of the Pilcomayo and the Choroti living in the interior is almost one of antagonism. Within the sub-tribes, again, the feeling of blood-relationship is strong. Such a sub-tribe consists of a number of village communities, each composed of a few families closely related to one another. As a rule each village has its chief, *anetsiãs*, and over the whole sub-tribe there is even a »great chief».

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[1]) When in the following pages I sometimes use the word »clan», this term has merely reference to the »sub-tribes», by which I simply mean a number of families recognizing consanguinity. The chief reason why the »sub-tribes» of the Chaco Indians cannot be called »clans» proper is that they are not exogamous.

[p. 43] [p. 42 is blank]

142 The skin colour in adult Choroti is brown, newly born children have light yellowish-brown skin, but it soon gets darker, so that even rather young children, figs. 21 and 22, seem to be of a very dark colour. The hair is lank, and the iris dark brown. From Lehmann-Nitsche's and my own anthropological observations I have compiled the following table.

The Choroti: some physical features.

[141]

Sex	Average height, cm	Shape of skull	Skin colour, von Luschan's scale	Hair colour, Fischer's scale	Iris, Martin's scale
Men.....	[1] 161.6 [2] 170.0	Dolichocephalic, predominantly	22, predominantly	4, predominantly	4, predominantly
Women ...	[3] 155.3 [4] 152.0	Dolichocephalic, predominantly	18, predominantly	4, predominantly	4, predominantly

145 [805] As the Choroti do not keep count of the age of their children, nor of their own, it is impossible to obtain, by direct questioning, from these Indians any information as to the relation of puberty to age in individuals. One of our Creole servants, who had lived a long time on the Chaco, has, however, told me that Indian children arrive early at physical [582] development (fig. 24), and that the girls are considered marriageable after their first menstruation, which, according to my informant, occurs at the age of ten to twelve. And, according to the same person's statement, the boys are ripe for marrying at the age of about fifteen. The blossoming-time of the women is very brief, and as they grow old they often become repulsively ugly. It is notable that the old women, as a rule, were thin of body, whilst elderly men often were inclined to stoutness.

[621] 361 The Choroti live together in villages. The selection of the village site depends primarily on the supply of water and food, and, in the case of cattle owning Indians, also on grazing conditions. Often the huts are built alongside shade-giving trees (fig. 25). The fan palm found in the [824] Chaco (Copernicia australis), (fig. 10,) being valuable to the Indians on account of its easily worked wood, its pith (used for food), and its leaves

[1] Acc. to Lehmann-Nitsche's measurements of 20 individuals.
[2] » » the Author's » 10 »
[3] » » Lehmann-Nitsche's » 10 »
[4] » » the Author's » 13 »

[text continues on p. 37]

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

Indian tribe. For myself I have regarded them mainly from the point of view of the ethnologist and social psychologist, and cannot help holding a somewhat different opinion on the subject. The state of things which Mr. Grubb found among the Lenguas, it should be noted, is in the main the same as among all Chaco tribes. Mr. Grubb disregards the fact that what he calls Indian socialism, with the solidarity and social sympathy which it involves, is not accidental but the natural outcome of evolution and the circumstances under which the Chaco Indians have lived for centuries. It is not only a natural system but also a useful system, having been developed according to the Darwinian law that in a hard struggle for existence such societies have the best chance to survive in which the sympathetic feelings are strongest. In fact, nowhere is mutual aid more necessary than among the half-nomadic Chaco tribes, who are able to practise agriculture only to a small extent and who, as pointed out before, at certain times of the year have to struggle hard to support life. Lacking these social feelings, I believe, many of the smaller tribes, for instance the Choroti, would have perished long ago. Besides, the very history of the Chaco Indians proves that they have been driven into these inhospitable regions by forces over which they had no control, the most important being the pressure of superior peoples. Pressed from behind and meeting resistance from those already occupying these lands they were compelled to fight for their very existence. These facts of the historic past of the Chaco Indians account for the warlike character of many of them, but also for their strong social instincts.

Social sympathy is developed strongest among low tribes such as the Choroti and Ashluslay, but also manifests itself among the Tobas and the Mataco. What Mr. Grubb says with special reference to the Lenguas, that »the apparent hospitality is given grudgingly, though ostensibly with a good grace», does not at any rate hold true of the *Choroti*. I have mentioned before that bargaining in every form is unknown to the Choroti, and this is due simply to the fact that they regard themselves as being socially so intimately united that property and the products of labour are practically common to all. When a party of Choroti men return from fishing they always distribute the catch in the village so that every family has its share, and if one asks a Choroti why he does so, his only answer is generally: *etsini*, *i.e.* »they are my brothers». »We are all brothers», is the principal tenet of their social morality. There is an unwritten native law which states that no single family or individual shall suffer want as long as there are others who possess food. This system is looked

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 180. Husband and wife, with baby. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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supernatural, of some kind or other, plays a leading part when children kill their aged parent.

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Every village is ruled by a chief or headman. According to the observations of some investigators, these headmen do not nowadays possess any great power or authority, but among the Choroti whom I visited in 1901, the chief's authority was by no means inconsiderable. For example, it only needed my arranging with him that the Indians were to carry out a certain piece of work, and the work would be done. For the work performed by the Indians I paid the chief in goods, which he allotted among them as he himself thought fit, as it appeared. In war, each village contingent is under the leadership of their headman. It was stated by the soldiers of Fort Crevaux that all Choroti used to be under a paramount chief, whose authority over all the other chiefs principally consisted in his being entitled to taking chief command in war. The office of village headman as a rule descends from father to son.

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That certain Choroti chiefs used to be held in greater respect than others was made evident to us at a visit we made to a sugar plantation on our return journey to Salta. A large number of Choroti had just then

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
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SOCIAL LIFE

CHAPTER III.

M T C 619

Social organization. Chiefs.

The social organization among all tribes of the Pilcomayo is fundamentally the same, although the Tobas represent a more highly developed type of society than the Choroti, Mataco, and Ashluslay. Among all of them the »tribe» is a fairly loose social unit, being simply composed by families related to one another by blood. A clan organization in the strict sense of the word does not exist among the Chaco Indians [1]) and totemism is entirely unknown, although the beginnings of a totemistic system may be traced among the Tobas. The appellation »Ostrich-men» given to the Tobas by some of their neighbours, and certain ideas held of this bird by the Indians themselves undoubtedly point in this direction. C 619 As to the *Choroti*, I have already mentioned that they are split up into three principal sub-tribes, each occupying a special territory within the tract which these Indians regard as belonging exclusively to themselves. Although the different sub-tribes feel themselves, in a general way, parts of the same tribal unit, the Choroti people (*Jóhuaha*), there is not much communication between them and, as I have stated before, the relation between the Choroti of the Pilcomayo and the Choroti living in the interior is almost one of antagonism. Within the sub-tribes, again, the feeling of blood-relationship is strong. Such a sub-tribe consists of a number of village communities, each composed of a few families closely related to one another. As a rule each village has its C 622 chief, *anitsiás*, and over the whole sub-tribe there is even a »great chief»,

[1]) When in the following pages I sometimes use the word »clan», this term has merely reference to the »sub-tribes», by which I simply mean a number of families recognizing consanguinity. The chief reason why the »sub-tribes» of the Chaco Indians cannot be called »clans» proper is that they are not exogamous.

[p. 43] [p. 42 is blank]

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

anélsiäs vuh, exerting a certain social influence. Chieftainship however, among the Choroti is rather nominal than real; even the »great chief» is in fact destitute of power, although in relation to other tribes and to the whites he exercises certain representative functions. Thus when commissions from the sugar factories arrived in the Chaco to negotiate about the sending of Indian labourers to northern Argentine, they had to deal with the chiefs, who through the medium of interpreters gave them answers on behalf of their people. But even the »great chiefs» cannot compel anybody to work, nor can they interfere with the private affairs of the families, in which the father and the mother have full liberty of action. Still more imaginary is the power of the village chief, who is nothing but a *pater familias* enjoying a certain esteem. He cannot command anybody, but merely represents his village community in relation to outsiders, just as the »great chief» represents the whole sub-tribe.

The dignity of chief is not hereditary among the Choroti, nor apparently among the Mataco. When the chief dies, the oldest family fathers of the community assemble under the big algaroba tree which serves as a club-house and elect a new chief, the election taking place in connection with a drinking-feast.

Old men are generally held in great esteem, and the chiefs are generally, although not invariably, men of advanced age. Among the Choroti, old men are held in particular esteem for superstitious reasons, since they are believed to be changed, after death, into evil spirits. As we shall see later on in the chapter on the religion of the Indians, the spirits of the Choroti are believed to appear in the shape of old men. Since the natural magical power of the human body is increased with advancing age, it is natural that old people are feared, but the supernatural halo which surrounds them of course at the same time is apt to give them social influence. Above all their supposed connection with the spirits makes them qualified to exercise religious functions. Independent of any particular initiation, every old man is credited with the power of conjuring the spirits and is thus always more or less a sorcerer. If therefore we wish to speak of a social distinction among the Choroti, we may say that the sorcerers, called *ayïeu*, are the only members of the Choroti society who in a certain sense form a class of their own or mark the beginnings of a social differentiation. Since, however, every old man is more or less expert in the act of magic and considered able to handle the rattle gourd (*pelïte*) or the drum (*usyúk*), the *ayïeu* of the Choroti cannot be called professional sorcerers in the strict sense of the word.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

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A Choroti settlement in the neighbourhood of Fort Guachalla. Angry dogs are the first to welcome the visitor.

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The old Choroti chief Atamo and his relations.
The scene to the right illustrates the Indian custom of louse eating.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

arrived at this plantation to look for work. Led by their chiefs, they had made the long journey from the region of their homes. The chiefs, some of whom had met us in the Chaco, whilst others had only heard of us, wished to pay us a call. Personally I do not possess any notes about this reception, but I have come across some in Fries' diary. He thus refers to the incident: »When the Choroti Indians, whom we knew from Tatarenda and who were now working here, saw us, they came, almost to a man, and greeted us, being evidently very glad to meet us again. *The principal chief, at the head of all the lesser caziques*, was among those who came and paid us their respects.»[1]

A favoured position in the village community is that held by the medicine men; for their services they are rewarded by a — from a Choroti point of view — generous remuneration in the form of food and drink. That among the Choroti the medicine men are held in great esteem, and that everybody is anxious to be on good terms with them, appears only natural to anyone with a knowledge of what an important part magical conceptions play with these Indians. It is largely by the Finlander explorer, Rafael Karsten — oft-quoted in the present work — that ethnological science has been enriched by information and detailed reports on the magical customs and practices of the Choroti, as well as of other Chaco tribes.[2]

The Choroti Indians believe that man, all his life through, is more or less subject to influences from spirits, who, on the whole, are of a harmful nature. Especial danger is to be apprehended from spirits on certain occasions such as child-birth, pubescence and death. Usually the evil is worked by a spirit, »mohsek», entering a person through one of the orifices of his body and thereby assuming possession of him. If at birth a child is deformed or very sickly, it is supposed to be possessed by some evil »moshek», and is on that account killed.[3] When a girl has attained the age of puberty, during the first critical, time she must keep a covering over her head, so that no evil spirit may be able to enter her body by way of her nose, mouth, eyes or ears.[4] The occasion of a girl attaining puberty is celebrated with a dance which undoubtedly is of a magical character.

[1] Professor Robert Fries: diary, X, p. 14. Italics by von Rosen.
[2] See Bibliography attached.
[3] Karsten (1), p. 176.
[4] Karsten (1), p. 165.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Fig. 180. Husband and wife, with baby. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

supernatural, of some kind or other, plays a leading part when children kill their aged parent.

Every village is ruled by a chief or headman. According to the observations of some investigators, these headmen do not nowadays possess any great power or authority, but among the Choroti whom I visited in 1901, the chief's authority was by no means inconsiderable. For example, it only needed my arranging with him that the Indians were to carry out a certain piece of work, and the work would be done. For the work performed by the Indians I paid the chief in goods, which he allotted among them as he himself thought fit, as it appeared. In war, each village contingent is under the leadership of their headman. It was stated by the soldiers of Fort Crevaux that all Choroti used to be under a paramount chief, whose authority over all the other chiefs principally consisted in his being entitled to taking chief command in war. The office of village headman as a rule descends from father to son.

That certain Choroti chiefs used to be held in greater respect than others was made evident to us at a visit we made to a sugar plantation on our return journey to Salta. A large number of Choroti had just then

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

of the districts mentioned, the forests are not of such a nature as to lend themselves, in the near future, to profitable exploitation. Neither is there any ground for supposing that in the interior of the Chaco, where the soil in the greater part consists of loess-like strata, there is any prospect of finding any valuable minerals, or any other important products of nature. The great possibilities for cattle-ranching that exist in certain parts of this region, will, however, probably facilitate its colonization. If, contrary to expectation, gold-bearing ground, for instance, were discovered on the Chaco, even those parts of the »great hunting ground» that are most difficult of access would, no doubt, before long be explored.

And it was precisely the thirst for gold and silver that first led white men into the Chaco. The Portuguese, Alejo Garcia, and some countrymen companions were the first whites who visited this region. About 1520 these adventurers, at the head of an army numbering some 2,000 Guarani Indians, marched right across the Chaco, from Rio Paraguay to the Andes, and invaded Peru. From the Indians of Rio Paraguay, Garcia had heard rumours of that country, and of its wealth in gold and silver, and it was covetousness of these precious metals that was the motive force in the hazardous and arduous march through the Chaco. Baron Nordenskiöld has established that this expedition was probably made some year, or years, before Pizarro's arrival in Peru, and that thus Garcia and his companions probably were the first Europeans who obtained personal knowledge of the ancient Inca kingdom.[1]

Although the Gran Chaco, as we have seen, was visited by white men at the beginning of the 16th century, it was only in the latter years of last century that any detailed and reliable information became obtainable of the more inaccessible parts of this region. The French explorer, J. Crevaux,[2] who intended to make extensive research of the country and population around the Pilcomayo, was given no opportunity of carrying out his plan, for, already at the outset of his expedition, in 1882, he was murdered by Chaco Indians, probably members of the Choroti, as well as the Toba, tribe. Another French explorer, Thouar, has described a journey across the Chaco.[3] The Norwegian, Lieutenant Storm, has published important observations from two expeditions of his on the

[1] Nordenskiöld (10), p. 46 et seq.
[2] Crevaux (1), pp. XIII—XVI.
[3] Thouar (1).

Mataco SI7
Choroti SK6

M /320 cont./

771 They have a vague idea of superior beings, whom they fear
776 without worshiping them; the cleverest one becomes the sorcerer
756 and exploits the poverty of his companions, especially today when
648 they are earning money from the whites, to whom they lend im-
464 portant services.

M They frequently move from the region that they occupy to
167 the Argentine Republic; they work, dress, learn some Spanish
177 and a slight smattering of civilization, and return to their lands to live as before.

Choroti

Ci The zone located southeast of Toba territory is occupied
131 by the Choroti Indians, who have their own language. They
197 occupy the geographic degree 22° 30' latitude and 64° 10' longitude, on the left bank of the Pilcomayo River.

Ci They are quite numerous and peaceful, and they are not
181 treacherous like their neighbors, the Toba. Nevertheless, they
648 inspire respect in all the neighboring tribes; if a mission were to be established at said degree, the conquest of all the Bolivian territory /321/ up to 24° would be accomplished without the need of so many small forts, which are such a great expense to the Nation and which do not create centers of trade and civilization.

Ci Father Gianelli in years past visited the Choroti Indians,
797 was received with displays of affection and appreciation, and
177 found among them good inclinations toward becoming civilized, but at that time the harvest was too much for so few evangelical workers.

Ci The Choroti are not so lazy and savage as the other tribes;
181 they devote themselves to the cultivation of a few seeds and to
241 the raising of cattle, although on a small scale. They are also
231 hunters, however, and when they occupy the banks of the
224 Pilcomayo, they take advantage of the fruits the river brings them, especially in the great floods.

Choroti SK6
Mataco SI7
Güisnais

Ci /321 cont./

301 Doubtless through being very close to the Toba, they
302 pierce their ear lobes, in which they put pieces of wood, and
171 they also stain their faces.

Ci In the expeditions to the Paraguay they have never shown
648 themselves to be hostile to the whites and soldiers; rather they
[464] have lent important services and it was they who saved the life of Señor Touvar and his companions when they became separated from the expedition. Therefore the reduction of these Indians to civilized life would be very profitable.

Güisnáis

M These Indians occupy the western bank of the Pilcomayo
131 facing the Choroti Indians and southwest of the region occupied
101 by the Mataco. The geographic degree of their territory, with a very slight difference, is the same as that of the Choroti, since they are separated from the latter only by the river bed.

M They are a division of the Mataco; they speak the latter's
101 language with very little difference; their customs are nearly
181 identical and their number quite small. They are of a peaceful
241 nature like the Choroti, and like them, they plant gourds and
231 other vegetables. They also devote themselves to the raising of
197 domestic animals, such as cows, horses, sheep, goats, and chickens.

M Even the Güisnáis frequently come out for jobs in the
167 Argentine Republic, from where they also bring back weapons,
177 in order to use them particularly in the woods, killing birds, wild
464 boars, deer, and other quadrupeds.
224 They have more religious ideas than other tribes, and it

M seems that their great-grandparents might have belonged to
174 some former Argentine mission, because, more than others, they
771 recognize a true divinity. /322/ Nonetheless in their great
776 ignorance they confuse ideas, and in great fear they recognize in
[756] sorcerers a power that they do not have.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
Choroti SK 6

M 114

of a ford. Those Chaco Indians who live beside the river, clever swimmers as they are, possess great experience and dexterity in performing such tasks and in fact, no white traveller in the Chaco could easily do without their services. At the fordable place where we crossed to the other side the water was so low that men and animals had to swim only a short distance, our clothes being taken over in a big cow's hide folded up so as to form a sort of vessel. Within half an hour we were all safely on the other side of the river and could continue our journey.

T [101]

The Bolivian sub-tribes of the great Toba nation inhabit the region between fort d'Orbigny in the south and the village Villa Montes (Mission of San Francisco), situated about twenty leagues to the north, on the left bank of the Pilcomayo. I proposed to visit these Indians later on. For the present my destination was the country of the Choroti which lies about midway between the fort d'Orbigny and the next Bolivian military station on the Pilcomayo, Guachalla. To reach the first Choroti village I had to travel about eight leagues along the narrow path which — in the main following the river but at times retiring far from it — runs from d'Orbigny in a southerly direction. This path is in some places almost obliterated, especially when it leads through the plains, and for the traveller there is the frequent risk of losing it, in which case he may easily go astray in the wilds.

C 648

It was in the beginning of December that I first made the acquaintance of the Choroti in their own land. These Indians are now what the Bolivians call *indios mansos* (tame Indians) and there is no danger for a white man in visiting them. The few white settlers on the Pilcomayo have very seldom had any trouble with the Choroti, who — in contrast to the arrogant Tobas — are a peaceful people. A *kilai* (the name given every white man) is therefore kindly received if he himself treats the Indians well and does not arrive empty-handed. So it was with Nordenskiöld during his stay among the Choroti, and so it was with me. It is not possible to live among the Chaco Indians without bringing articles of exchange, and for my own part I had a good supply of such things. Among these were not only shirts, needles, thread, small mirrors, glass beads etc., but above all tobacco which is the article most appreciated by these Indians. Tobacco in fact is a sort of tribute which everybody must pay who travels in the Chaco and has to deal with the natives. Every male member of the small community whose guest I was had to receive his share — of course only a small quantity, just enough to fill the pipe a couple of times — and the gift had to be repeated every day. The Choroti

C 574 276

2. Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

necessity of fishing also at that time compels them to stay near the river. But as soon as the rainy season sets in and the algaroba, tusca, and other fruits begin to ripen, the Indians take up their abode in the forest close by some small lagoon or a rare water-hole several leagues from the river, spending most of their »summer» time in drinking algaroba beer, feasting, and dancing. The Indians of the Guachalla region form the main bulk of the Choroti tribe and number about a thousand individuals. Their immediate neighbours in the south are the Ashluslay, to whom the Choroti are closely related in their culture. There is much communication between the two tribes and intermarriage is frequent. Thus the chief of the Choroti, the old Ātamo, was on his father's side of Ashluslay descent, but since mother-right prevails among the Chaco Indians, he had become a member of the Choroti tribe.

There seems to be a certain antagonism between the different Choroti tribes, in consequence of which they have very little intercourse with one another. I particularly noticed such an antagonism between those Choroti who live on the river and those living in the interior. It would have been impossible for me to get a guide among the people of the chief Toula to accompany me to Anempä's tribe. Since to these Indians, who in general live to a great extent by fishing, the possession of the river is of great importance, I suppose it is originally due to this enmity that some Choroti Indians have settled in the inhospitable regions in the interior where they are found to-day. These latter even speak a somewhat different dialect of the Choroti language. Thus, one of the commonest words in the language, the word for 'house', is in the dialect of the river Indians *uk*, in the dialect of the inland Indians again *sáuo*.

The Choroti living on the river call the Choroti tribe inhabiting the interior of the Chaco *Asówa*.

The total number of the Choroti I estimate at about 2,000 or a little more.[1] The surrounding tribes are much larger. Of these I have already mentioned the southern neighbours of the Choroti, the Ashluslay, whom the Choroti call *Ahle*. Their neighbours in the north are the Tobas, whom they call *Johlōki*, and another Chaco tribe, the Tapiete, whom they call *Ohuénik*. Their neighbours in the west again are the Mataco, whom the Choroti call *Hotenúk*. They have dealings with all these tribes, although at times they have been at war with them, or at

[1]) Consequently, when Nordenskiöld estimates the Choroti at 4,000 individuals, this is a great exaggeration.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI12
Choroti SK6

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least with the Mataco. The Choroti also very much fear the powerful and ferocious Tobas and do not like to pass through their country.

Having finished my studies of the Choroti Indians, I left at the beginning of April for Yacuiba to prepare for my next Chaco expedition, when I proposed to visit the Tobas. Since I could not cross the river which was still swollen by the rains, I decided to return to Yacuiba through the village of Villa Montes (Mission of San Francisco), situated about thirty leagues to the north of d'Orbigny, on the bank of the Pilcomayo. From this village it is a journey of nearly three days to Yacuiba. A narrow riding-path, which in the main follows the course of the river, takes the traveller up to Villa Montes through the dense forests bordering the banks of the Pilcomayo in this region. The typical Chaco scenery disappears as one approaches the cordilleras. The village itself is situated on the very border of the Chaco, at the point where the Pilcomayo leaves the mountains.

A journey like this is very difficult and even dangerous during the rainy season. In many places the primitive riding-path had been completely destroyed by the strong current of the swollen river. Every now and then large pieces of the river bank were detached and plunged into the water with a tremendous rumble, carrying with them giant trees and bushes. In such places the traveller had to cut a new path through the thickets of the virgin forest for himself and his horse, which of course was often connected with great difficulties. It is easy to understand that in this way the Pilcomayo has undergone considerable changes in the course of time. As is shown by old river-beds, the river has several times even taken another course.

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These regions are inhabited mainly by Toba Indians, and on my journey to Villa Montes I passed through some of their villages. Since these Tobas are comparatively easy of access, I decided to stay among them on my second Chaco expedition.

In Yacuiba I was obliged to stay for more than one month, so it was not until the middle of May that I could again leave for the Chaco. Passing through the little village of Caiza to Villa Montes, which became my head-quarters for the next six months, I settled in a Toba village about eight leagues to the south of this place, visiting later on the more distant Toba tribes. Although the Tobas have had a bad reputation — among other things these savages killed the explorer Crevaux — I was received by them in quite a friendly manner. In regard to the language, I had in the beginning the same difficulties as among the Choroti. The two

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
Choroti SK 7

In disposition the three tribes show great differences. The *Choroti* are pleasant and cheerful, and display to a high degree that humorous spirit which is often characteristic of the Indian even when he looks serious. They are lazy and carefree and love amusement, feasting, dancing, and games above everything. When the Choroti Indian has plenty of food and algaroba beer for the moment, he makes merry and eats and drinks as much as he can, but has no thought for the morrow and does not store provisions like the more advanced Chaco tribes. This particularly holds true of the men; the women, who in general are more industrious, show more forethought in this respect, collecting wild fruits in great quantities when they are in season, and keeping the seed-corn till the following sowing. But on the whole poverty is an outstanding feature of the material culture of the Choroti, and this is no doubt due to a great extent to their own character.

The Choroti are — at least nowadays — a peaceful people, and in the insignificant wars they have sometimes waged with the Mataco on the other side of the river, they have manifested very little organization or discipline. As I was told by settlers on the Pilcomayo, the Choroti were formerly more warlike, and like other Chaco tribes, they were even in the habit of scalping those enemies whom they killed during their raids.

The *Mataco*, although anthropologically closely related to the Choroti, differ from them considerably in character. The Mataco Indian is serious, taciturn, and gloomy, and in consequence more addicted to religion and superstition than his brother the Choroti Indian. At least nowadays, when the Indians are strongly influenced by European civilization, the Mataco Indian will not make a reliable servant and companion. Cleanliness is not a particular characteristic of the Choroti, but the Mataco are probably the dirtiest of all Chaco tribes. This too may in part be a consequence of their contact with the whites. On the other hand, the Mataco are more industrious and energetic than the Choroti, and accordingly, in their wars, have proved more valiant and capable of more organization than their primitive neighbours. In these respects the Mataco, at any rate the Bolivian tribes, resemble their neighbours the Tobas more than the Choroti.

As to the *Tobas*, their moral qualities and disposition have been described with much unanimity by many travellers. Nearly all have characterized them as bad, ferocious, treacherous, thievish, etc., qualities which they have especially displayed towards the whites. Typical on

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

equipment in large carrying-nets and bags; at such times the men march along unburdened, carrying in their hands only bow and arrows. This is, however, easily accounted for, as on the trek the men have always to be prepared to kill game for procuring food. If they, like the women, were hampered by heavy loads, they would practically have no chance at all of taking a ready arrow shot at game encountered on the march.

I never once saw grown women amusing themselves with any games or sports, whereas this is frequently the case with the men. The chief occupations of the latter consist of hunting, fishing, the gathering of wild honey and the manufacturing of various weapons and implements (see the above table of division of labour as between the sexes). The men give considerably less time to actual labour than the women, and to me it seemed as if the life of Choroti wives was hard and laborious, whilst that of the men, as a rule, was pretty light and easy-going.

Nevertheless, the men are by no means hard or cruel to their wives, and it appeared to me as if the women took it as a matter of course that they had to work for their husbands and children in the way they did, and, generally speaking, they seemed quite content with their lot in life. Indeed, I noticed many instances of real domestic happiness.

Parents bear great love to their children. These, when quite small, are carried by their mothers in a broad strip, or piece, of cloth in the way fig. 180 shows. The Choroti do not have many children; it is only seldom that the number of children exceeds four. According to Nordenskiöld, they are given names only when old enough to answer to them. The same author has noted down the following Choroti names, of which the first three are men's names, and the remainder women's names: Yóseliancé (the killer of foxes), Hotenic (Mataco), Éstiáhua (a gallinaceous bird), Hayku (not sweet), Kosoki (suffering from skin eruptions), Aséshnialo (women in plenty).[1]

Parental authority does not amount to much, and actual bringing up and discipline is entirely out of the question. In cases where parents attain so great an age that they become irksome to their children, it is not unknown for the latter to kill them. Nordenskiöld's interpreter, Flores, once witnessed a Choroti man burning an old and decrepit woman alive. Old men and women, who are suspected of working evil by witchcraft, are sometimes burned alive, and therefore it is possible that belief in the

[1] Nordenskiöld (13), p. 85.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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[342]

Fig. 180. Husband and wife, with baby. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[888 754 683] 622 supernatural, of some kind or other, plays a leading part when children kill their aged parent.

Every village is ruled by a chief or headman. According to the observations of some investigators, these headmen do not nowadays possess any great power or authority, but among the Choroti whom I visited in 1901, the chief's authority was by no means inconsiderable. For example, it only needed my arranging with him that the Indians were to carry out a certain piece of work, and the work would be done. For the work performed by the Indians I paid the chief in goods, which he allotted among them as he himself thought fit, as it appeared. In war, each village [643] contingent is under the leadership of their headman. It was stated by the soldiers of Fort Crevaux that all Choroti used to be under a paramount chief, whose authority over all the other chiefs principally consisted in his being entitled to taking chief command in war. The office of village headman as a rule descends from father to son.

622 554 That certain Choroti chiefs used to be held in greater respect than others was made evident to us at a visit we made to a sugar plantation on our return journey to Salta. A large number of Choroti had just then

2: Karsten E-5 (1911-1913)1932 SI7 Mataco
Toba 5/12
Chorotis K7

C 593 152 [691]

the men in such cases showed to what extent the women dominate the home life of the Choroti. There is not, among these Indians, any punishment for adultery as such, for the very reason that punishment in any form is unknown within the tribe. — Among the Tobas again a man may beat his wife if she commits adultery.

C 578 152

On the other hand, if a Choroti woman gets to know of a female rival, the result will in all probability be a fight between the two women, who use a sort of boxing glove of hide, or small daggers consisting of the legbone of a deer pointed at the end. The same custom is followed by the Mataco and the Toba women, in whom jealousy is likewise a prominent quality. Among the Tobas particularly, fights between girls who have fallen in love with the same man are of frequent occurrence. Similarly, if a married woman gets to know that her husband maintains illicit relations with another woman, the consequence is in most cases a fight between the legitimate wife and the rival, and these fights are not seldom sanguinary. The one even tries to kill the other which, of course, she very seldom succeeds in doing. Such fights are continued for several hours, often for a whole night, during which the two enraged women beat each other with the hands, scratch each other with the nails, or wound each other with big cactus thorns which they have tied at the wrists.

T 578 152

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

cultural elements the distribution of which is not exactly known.

The *lance* likewise belongs to the weapons seldom used in the chase, but chiefly in combat with other men. However, I have seen the Mataco use lances in hunting the peccary. The Ashluslay also have lances, provided, like those of the Mataco Indians, with iron heads, which the Indians obtain from the whites by barter. Besides among the two tribes here mentioned, I have seen lances among the Toba alone. The lance has, or more correctly had, a very extensive distribution in S. America. It is certainly very difficult to decide which tribes have learnt the use of the lance from the whites[1]) so that I do not venture to express an opinion as to where this cultural element is to be placed. As early a writer as SCHMIDEL[2]) says of the Timbú Indians: «En esta ocasion ellos se habian fabricado lanzas largo con las espadas como se habian aprendido á los Cristianos.»

Neither of the Chaco tribes here dealt with possess shields. On the other hand, the Ashluslay occasionally have *body armour* of cow hide and jackets of jaguar hide, which serve as a protection against arrows.[3]) DOBRIZHOFFER mentions similar jackets of tapir and jaguar hide from the Apipone[4]). The Patagonians, too, according to FALKNER[5]) and

[1]) An exhaustive historical enquiry would be necessary, and this would be difficult, if not impossible, to carry out.

[2]) p. 192.

[3]) «Indianerleben», Pl. 13.

[4]) «The Abipones are unacquainted with shields and target, but they cover the greater part of their bodies with a sort of defence, made of an undressed antas hide, a tiger's skin being sewed either in the in- or outside; it is open in the middle, that the head may come through, and extended on each side as far as the elbows and middle; it is impenetrable to common arrows but not to spears and bullets, though it somewhat diminishes their force. To this coat of mail they added a girth wider than a man's hand, of the dressed hide of the same animal, when they saw their leader Debayaikin wounded in the belly with a spear.» Vol. 2. p. 361.

[5]) p. 112.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
Choroti SK 6

by the whites even in their dress, but those sub-tribes who still live in a state of nature keep the body almost wholly uncovered or only wear clothes consisting of animals' skins or cotton or woollen waist-clothes and mantles of their own make, just as is the case with the Choroti. The Catholic missionary Cardús, who visited the Tobas about fifty years ago, relates that the majority of the men used to go entirely naked, only wearing a small apron of skin or stuff. When they went out hunting or to battle they wore a jacket or a breast-plate of tiger's skin. Although nowadays the Tobas commonly use articles of clothing obtained from the whites, they are still frequently seen to go almost naked, only wearing a small waist-cloth, especially when the weather is hot or when they are working. The women, according to the same writer, used to have a small apron of fox, deer, or tiger's skin tied at the waist, which reached down to the knees. The hairy side of the skin was turned inwards and the outside was painted in different colours and figures. Nowadays, as I have already mentioned, the dress of the Toba and the Mataco women in Bolivia is the *tupu*, a sort of long gown or shirt made of red or some other brightly coloured stuff which covers the whole body leaving only the arms bare.

Both the Choroti and the Mataco men on certain occasions wear a kind of coarse shirt made of the fibres of the *caraguatá* plant (*Bromelia serra*). These shirts are mainly worn as a protection for the body against the thorny bushes when wandering in the forests, but also as armour in battle, since the arrows of the enemy are supposed not to penetrate these thick shirts. As a protection for the feet again the men, when hunting in the forest, sometimes wear a sort of sandal or leggings roughly made of deer or tapir hide. The head is always kept uncovered by the Chaco tribes or is only covered by ostrich plumes and the purely ornamental headgear which forms part and parcel of festive attire.

The houses of the Pilcomayo tribes are all of the same exceedingly primitive construction, or at any rate have originally been of the same type. They are round, conical, or beehive-shaped huts, constructed by a number of boughs of trees fixed in the ground in a circle and tied together at the upper ends. This erection is covered with rushes, grass, and palm-leaves down to the ground so as to form a rough thatch. A small opening is left for an entrance or door, which is so narrow that the inhabitants are obliged to enter the hut on all fours. The whole hut, varying from six to ten feet high in the centre, is too low to allow a man to stand erect, and the grass thatch so loose that the abode offers only a poor shelter

286 Among the Choroti, I have only seen a very few individuals wearing
291 the poncho, and the only specimen of this garment I succeeded in obtaining belonged to a half-grown youth. This poncho (fig. 35) consists of a woollen fabric, 160 cm long and 61 cm broad, in the middle of which there is a slit, 26.5 cm in length. The weaving consists of two-threaded, tightly spun yarn of greyish white (the natural colour of the wool) and red (now faded). Its ornamental design is formed by three broad, decorated strips, woven on double warp, so that on one side the pattern shows greyish white on red ground, and on the other side red, on greyish white ground. The fabric between these strips is rep, with the woof of greyish white yarn. Whether this poncho is of Choroti weaving, one cannot be certain. Possibly it has been obtained by Choroti from their Ashluslay neighbours, seeing that similar garments are not uncommon among the latter.[1]

[531]

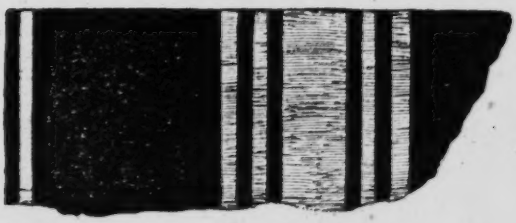

Fig. 33. Corner of man's mantle which is 204 cm long and 185 cm wide, of brownish-red wool, woven with groups of greyish-yellow stripes. Gran Chaco. Bolivia. 1/4. Riksm. 03. 3. 1.

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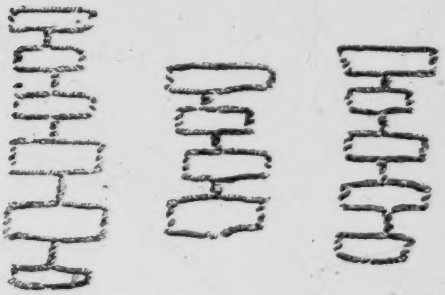

Fig. 34. Ornaments (probably property marks), placed in the middle of the mantle, a detail of which is seen in fig. 33. 1/2.

In the huts of the Choroti
292 I frequently came across a kind of thick shirts, knitted from tightly spun
●714 caraguatá-fibre threads (fig. 36), but I never saw them in use. In reply to my questions as to the reason for this, I was told that these garments are chiefly worn in fighting, when they are used as a protection against
[171] arrows. Caraguatá shirts are also used by the Ashluslay and the Mataco,[2] but in the literature on those Indians I have found no reference as to their being used as a protection against arrows. The Chiriguano, however,

[1] Nordenskiöld (11), pp. 111 and 112.
[2] Nordenskiöld (11), p. 107.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

as well as the Chaco tribes of the Guaikurú group, like the Choroti, wear these garments as war shirts.[1] In all the tribes just referred to (and the Ashluslay and Mataco as well), such shirts are worn exclusively by the men. The Caraguatá shirt here reproduced is knitted very tightly and closely (fig. 37), and, although its length is only 56 cm, exclusive of the shoulder straps, it weighs as much as 1.4 kg. The stripes that are worked in by way of ornamentation, have been formed by using string dyed black, and string dyed brown, alternately, in knitting. The parts that are between the stripes consist of undyed fibre. At the bottom edge of the shirt, small pieces of red and yellowish brown cloth have been tacked on; these originate from the whites.

Fig. 35. Child's poncho (a boy's) of wool, with woven ornaments. Ground colour brownish-red; ornament yellowish-grey. Choroti (probably manufactured among some other tribe). Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 4.

These mail shirts of caraguatá fibre string are exceedingly well manufactured, and undoubtedly form a good protection against the Chaco Indians' arrows, which are usually wooden pointed. Arrows with rod-shaped, iron wire points, or with leaf-like, edged, iron heads, on the other hand, would probably pierce even the thickest and most closely knitted caraguatá shirt. The shoulder straps in these mail shirts are knitted considerably thinner and less closely than the rest of the shirt, and this is only natural, as the function of the straps is to suspend the shirt, and not to give protection against arrows. Besides, they could only be hit by arrows dipping at an angle from above.

[1] Krickeberg (1), p. 131.

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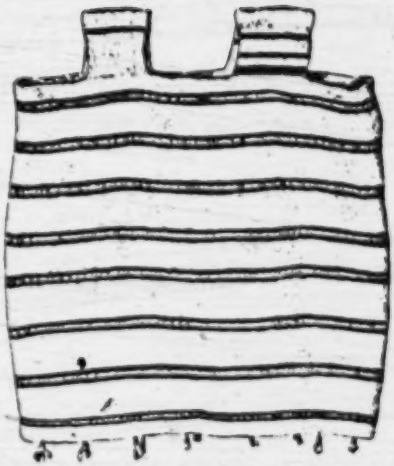

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Fig. 36. Mail shirt, knitted of caraguatá string. Worn principally as a protection against arrows. Choroti. Gran Chaco, Bolivia. 1/3. Riksm. 03. 3. 382.

It is worthy of note that the Choroti also manufacture another protective garment out of caraguatá, namely a sort of stockings. This footgear is put on for wading (in fishing), as a protection against the teeth of the terribly sharp-biting palometa fish.[1]

To protect the legs from spiny plants, I have seen Choroti using a kind of long deerskin leggings, laced on with leather straps. The legging here reproduced in fig. 38, which has a height of 71 cm, reached well above the knee of its wearer. Some of the Choroti make use of sandals,[2] but I have myself never seen them worn by these Indians.

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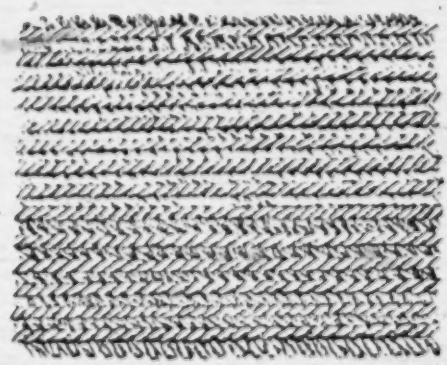

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Fig. 37. Enlarged detail of mail shirt, fig. 36. Natural size.

The men generally wear their hair of a medium length i. e., down to the shoulders, or the shoulder blades (figs. 16—18, 39 and 83) — but I have also seen Choroti with hair so long as almost to reach the waist. The hair is usually tied round with a woollen frontlet (fig. 39), or a frontlet of palm leaves (fig. 24), or birdskin (fig. 17), but it may also be worn loosely hanging down (fig. 53). Frequently the hair is tied into a brush-like bunch at the nape of the neck (fig. 39). Woollen frontlets are generally furnished with simple, tasteful, ornamentation (figs. 39

[1] Nordenskiöld (13), p. 110.
[2] Nordenskiöld (11), pp. 113, 114.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Fig. 110. War club, of hard, heavy wood (palo mataco). Choroti, Gran Chaco, Bolivia. 1/3 Riksm. 10. 3. 92.

As war weapons the Choroti use, beside bows and arrows, short, round-handled clubs of some very hard and heavy wood, usually palo mataco. The head and handle of the clubs is always carved in one piece (fig. 110). With these seemingly not very formidable weapons, the Indians are able — on account of the great hardness, heaviness and strength of the club material — to deal terrible blows, and they know how to use them with great skill.

In fighting their rivals, the Choroti women sometimes use knuckle-dusters of tapir hide or wood,[1] the latter being of a type identical with specimens found in ancient Indian graves in the mountain region to the west.[2] The Choroti use also bone awls as daggers. A bone awl especially suitable for a weapon is reproduced in fig. 111. It consists of the lower part of the leg-bone of a small deer; the foot serves for a handle, and the hoofs forms an excellent pommel. The weapon fits the hand very well when the thumb rests against the sole of the hoof.

For cutting up game, the Choroti use knives made of sharp-edged cane splinters. Knives and pomiards, of cane, have been very extensively used in South America. Even among tribes possessing knives of stone or metal, to this day knives of cane are being used in certain ritual ceremonies. Thus Bolinder, for example, mentions that among the Ijca Indians of Northern Columbia, in childbirth the navel is cut with a cane splinter.[3]

Fig. 111. Awl, made out of a shank bone of a small deer. Bone awls are sometimes used as pomiards. Choroti, Gran Chaco, Bolivia. 2/3. Riksm. 03. 3. 181.

The Choroti do not, however, possess only weapons of offence, but also weapons of defence. When on the subject on dress, I have described the mail shirts, made of closely woven, thick

[1] Nordenskiöld (11), p. 55 and 56; also (13), p. 81.
[2] von Rosen (1), pp. 203 and 204.
[3] Bolinder (1), pp. 240 and 243.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

714 caraguatá string, that are used by the Choroti as a protection against arrows (fig. 36), and have mentioned the protective abdominal rawhide belts that they put to the same use.

To many it may sound strange that mail shirts made only from vegetable fibre actually should be able to afford effective protection against arrows and other sharp-pointed, or edged, weapons. Body armour of this kind has, however, been used by many different peoples, and even as early a writer as Homer makes mention of »linen cuirasses».[1] When Herodotus makes a list of the weapons of offence and defence carried by King Xerxes' Assyrian auxiliaries, this list also includes »cuirasses made of linen».[2] Textile armour is, besides, also referred to by several ancient Greek and Roman authors. In the tales of the early history of Rome, we can read of Aulus Cornelius, a leader of Roman horse, how in battle he stripped Lars Tolumnius, the king of Vejentes, of a »linen cuirass» and solemnly dedicated it, among »spolia opima», to Jupiter Feretrius, at his temple on the Capitolium.[3] This, it must be admitted, undoubtedly points to the great esteem in which these defensive weapons must have been held. That the fibre mail shirts of the Choroti form a rather safe protection against the wood-tipped arrows that are generally used on the Chaco, is a circumstance I have already set forth.

726 411 Occasionally the Choroti make use of incendiary arrows for the purpose of setting fire to the villages of their enemies. On our way home from the Pilcomayo, in Argentine territory we passed a sugar plantation, to which Indians from different parts of the Chaco had come for work. Two tribes, between whom old enmity existed, had erected temporary villages for themselves near the plantation, and, for some reason or other, the old hostility was kindled into flame, so that it came to open fighting. The owner of the plantation told us that, on the night before our arrival, the Indians had shot incendiary arrows at each other's villages, and that by this means they had managed to set several huts on fire. We could quite believe that the scene then enacted was both terrifying and grand, with the fire-carrying arrows flying about like rockets in the night, whilst the war cries of the Indians made accompaniment to the battle.

[1] Homer (1), epic 2, verse 830.
[2] Herodotus (1), 7: 58–64, p. 471, Lindskog's translation.
[3] Neumann (1), p. 385.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

727 and this miniature pyre was set alight. The flames only rising upwards, the fire and the glowing cinders would only very slowly burn through the skin and into the stomach. It is difficult to imagine a more cruel method of torture.

721 Many of the wars waged between so-called civilized nations have owed their origin to greed of the wealth that nature produces, and among the Indians, wars may be due to the same cause. In the case of primitive

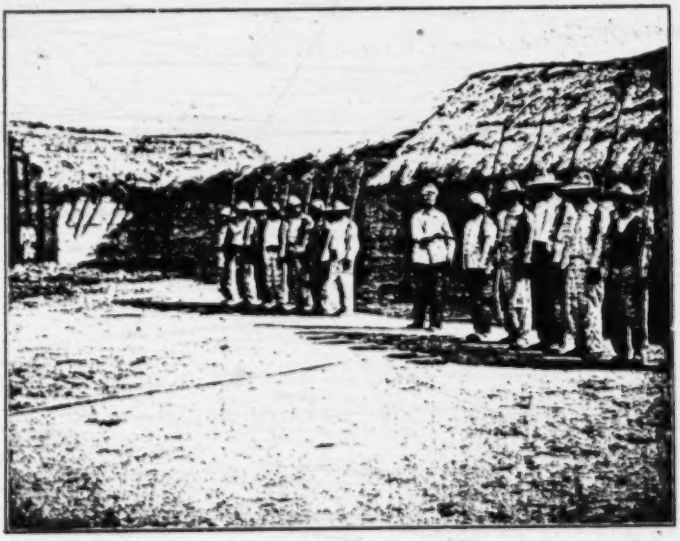

Fig. 112. Fort Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

peoples, wars are perhaps mostly a competitive struggle for food, and we may take it for granted that the fights that have taken place between the tribes on the Pilcomayo have been over the fishing in that river, so very important a matter to the Indians. It is partly for this reason, and partly because war is a hunting of human beings, that I have dealt with the war methods, and the war weapons, of the Choroti in this chapter on their means of subsistence.

226 Owing to the circumstance that the part of the Choroti tribe among which I was carrying on my studies, at the time of my stay with them,

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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[3] Neumann (1), p. 385.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

This Indian practice of setting fire to their enemies' dwellings by shooting arrows has been mentioned as early as the 16th century. Thus Schmidel, for instance, relates how the Indians in the year 1535 set the very town of Buenos Ayres on fire, by their bow-shots, so that the town was burnt to the ground.[1] 726

For choice, the Indians always try to attack their enemies by surprise. When the Indians on the Pilcomayo (Toba, and probably also Choroti) wished to annihilate Crevaux's expedition, by their at first very peaceable and confidence-inspiring demeanour, they succeeded in so completely duping the members of the expedition that the latter did not take the trouble of always going about armed. Then the Indians concluded that the time was ripe for action, and at a preconcerted sign they fell upon the expedition, only one of whose unsuspecting members managed to escape. According to what an old Mataco chief told me, the explorer, Ibarreta, was also treacherously killed by the Indians. Ibarreta was said to have fallen ill whilst staying among Tapiete Indians in the Pilcomayo swamps in the interior of the Chaco, and to have been killed by those Indians in his sleep.

When the Indians of the Chaco are about to embark upon some warlike enterprise, they first get up a festival of drinking and dancing, at which large quantities of algaroba beer are consumed.[2] They paint their bodies [302] black and red, and adorn themselves with plumes and other ornaments; this is, at least partly, done as a preparation for going to fight not only earthly enemies, but also supernatural powers.[3]

The Choroti take their fallen enemies' scalps, and subsequently, on 727 special occasions, hang up the scalps in their villages;[4] they also highly prize the scalp-locks, resembling brooms or shaving-brushes (see figs. 42 and 52), that they obtain from slain foes.

The Chaco Indians sometimes torture their war prisoners. According to what the Bolivian soldiers at Fort Crevaux told me, the way they used to torture their prisoners was as follows. The prisoner was laid flat on his back on the ground, and his hands and feet tied to pegged-down stakes. Dry sticks were placed in a heap on the stomach of the victim,

[1] Schmidel von Straubing (1), p. 33.
[2] Nordenskiöld (13), p. 122.
[3] Karsten (2), p. 36.
[4] Nordenskiöld (13), p. 121 and 122.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

VIII.

Weapons not used, or seldom used, in the Chase.

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The bow and arrow is the most important weapon used by the Chaco Indians here dealt with in their encounters with other Indians or with white men. I have treated of the bow and arrow above. Particular types of arrows that are only used in encounters with men, are not found, with the exception of the *fire-arrow*. The Mataco, and probably also the Choroti when they attack an Indian village, occasionally employ such arrows. With them they set fire to their adversaries' huts. Similar arrows are mentioned by DOBRIZHOFFER[1]) from the Abipone, STADEN[2]) from the Tupinambá, MARTIUS[3]) from the Chavantes, SCHMIDEL[4]) from the Indians at the estuary of the La Plata, BIET[5]) from Indians that lived near the estuary of the Oyápock in Guayna, DU TERTRE[6]) from the Lesser Antilles, and PIZARRO[7]) from Cuzco. Other weapons, not used, or seldom used in the chase, but principally in contests with men, are clubs, knuckle-dusters, lances and bone daggers.

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The *battle-club* has a characteristic shape among the Choroti and Ashluslay. It is short with a clearly marked head.

[1]) p. 359.
[2]) Vol. 1 Caput IIIj; Vol. 2, Caput xxvij.
[3]) p. 270.
[4]) p. 155.
[5]) p. 210.
[6]) Vol. 2, p. 404.
[7]) p. 200.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

292 cluster being merely a head ornament, but the Chaco Indians often give
302 information that is purposely incorrect, and hence one cannot always rely
[124] upon their explanations.[1] A quaint head ornament, met with among the Choroti, consists of a cross, about 1 dm high, constructed of feathers, thread, and a wooden stick. These crosses, worn stuck into the frontlet, are very similar to a kind of ornaments, probably symbolic or magic, that are occasionally found together with ancient Peruvian mummies.[2]

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Fig. 48. Ornament of white feathers, meant for fixing in a frontlet. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 26.

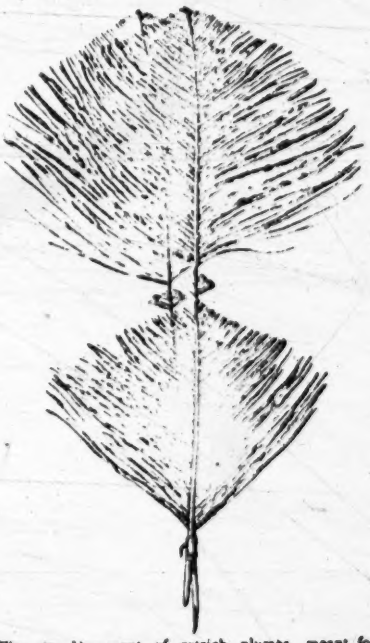

Fig. 49. Ornament of ostrich plumes, meant for fixing in a frontlet. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 20.

302 Occasionally the Choroti, and also other Chaco Indians, gather a lock
727 of their front hair into a tuft, tying it round with yarn or narrow woollen tape, so as to make it look like a brush, or broom. Sometimes they make a similar little brush from false hair, and wear it pushed in under the frontlet, over the forehead, so that it points downwards. The false-hair brush here depicted (fig. 52) possessed special value to the Choroti

[1] As to the lying disposition of the Indians of the Chaco, see for example Nordenskiöld (13), p. 34.
[2] Nordenskiöld (11), pp. 138—140.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

who was wearing it, for, according to his statement, this ornament originally belonged to an enemy killed by him (Cf. the »scalp lock» on the Indian in fig. 42). 302 727

On the Spaniards' first coming to the Inca kingdom, there was, naturally, in that country much that aroused their great astonishment. Among 101

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Fig. 50. Bamboo casing for keeping ostrich feather head ornaments. Choroti. Gran Chaco. Bolivia. 1/6. Rikam. 10. 3. 18.

Fig. 51. Palm leaf object, said to be meant for wearing in a frontlet. Choroti. Gran Chaco. Bolivia. 1/6. Rikam. 03. 3. 29.

other things, the strangers found it especially remarkable that Peruvian men of noble birth were wearing immense, often metal-mounted wooden discs, or hanging ornaments, in their pierced ear-lobes, which were distended to a monstrous size. This custom occasioned the Spaniards to give the Peruvian nobles the nickname of »orejones» — which might be

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

This Indian practice of setting fire to their enemies' dwellings by shooting arrows has been mentioned as early as the 16th century. Thus Schmidel, for instance, relates how the Indians in the year 1535 set the very town of Buenos Ayres on fire, by their bow-shots, so that the town was burnt to the ground.[1] 726

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[1] Schmidel von Straubing (1), p. 23.
[2] Nordenskiöld (13), p. 133.
[3] Karsten (2), p. 36.
[4] Nordenskiöld (13), p. 121 and 133.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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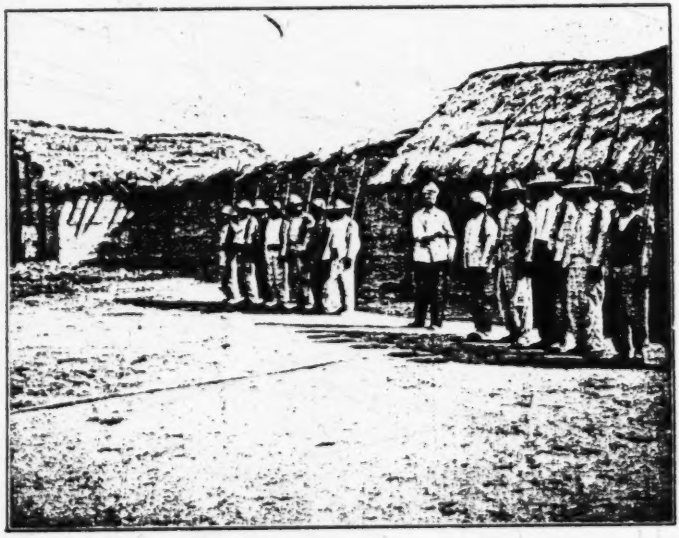

Fig. 112. Fort Crevaux. Gran Chaco. Bolivia. Photo. E. v. R.

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226 Owing to the circumstance that the part of the Choroti tribe among which I was carrying on my studies, at the time of my stay with them,

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

that the hair in certain magic rites could represent the person from whom it had been taken.[1] We find a similar belief existent among the Choroti who, because of it, carefully burn the hairs that they cut off or pluck out. They also believe that the souls of the dead, as well as evil spirits, are capable of working harm on the living by means of the hair, and on this belief is based the custom of the Choroti women of cutting off this adornment on the death of their husbands.[2] Similarly, the practice universally prevalent among the Choroti of plucking out eyebrows, eyelashes and other hairs of the face, the hairs of the armpits and about the genital parts, is probably due to this belief.[3] When a Choroti Indian takes a scalp, or fixes the scalp lock of a slain foe under his frontlet (see pp. 60, 61 and 103), it is probable that he considers that he has not only succeeded in obtaining a material trophy, but that the possession of the scalp or scalp lock to some certain extent confers upon him power over the spirit of his fallen adversary.[4]

Fig. 185. Bone awl for blood-letting. Probably made out of an ulna of a puma. The awl is wrapped round with a red woollen fillet to prevent it from penetrating too deeply into the muscles. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 82.

Fig. 186. Bone awl for blood-letting; also used for tattooing. Probably made from an ulna of a raptorial bird. The awl is wrapped round with grey and red woollen yarn (the latter nethermost) so as not to enter too deeply into the flesh. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 83.

In the foregoing (pp. 63 and 75) I have mentioned that the Choroti on certain occasions perform a kind of magic blood-letting by means of bone awls. I have also given an account of the Indian conception of the effects of this kind of blood-letting (see pp. 63 and 64). I will now add that I think it probable that the *material* of which the awl consists also plays a certain part.

Nordenskiöld has observed that the Ashluslay, when they are out looking for nests of wild bees, prick themselves above the eyes with a

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[1] Even as early as in the Wœrend law, mention is made of hair being used in witchcraft.

[2] See page 182.

[3] Karsten (4), p. 10.

[4] Cf. Karsten (4), p. 60.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XXIII.

Trophies.

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In the year 1909, in the Chaco, I succeeded in acquiring a scalp from the Mataco Indians (the scalp of an Ashluslay Indian) and one also from the Ashluslay Indians (the scalp of a Toba-Pilaga). I also learned that the Choroti take scalps. FRIEDERICI has written a comprehensive and excellent work on scalping and similar customs in America, which is based on extensive literary studies.

080

He there shows that scalping has two areas of occurrence in S. America[1]). The one comprises El Gran Chaco, and the other Guiana. Respecting the former he quotes numerous statements from literature on the subject. Among the writers quoted is SCHMIDEL. FRIEDERICI holds that the custom of scalping, in Guiana, is post-Columbian. ROTH[2]) is of the same opinion.

The keeping of whole human heads as trophies is, according to FRIEDERICI, a very widespread custom in S. America. According to his map this custom prevailed in the whole of S. America except in El Gran Chaco, Patagonia, and Tierra del Fuego. The correctness of this statement is not, however, apparent from the text of his work. From this work I formerly got the impression that headhunting occurred among the highly developed tribes of western S. America, including the Incas, in Eastern Ecuador,

[1]) (1) p. 40.
[2]) (2) p. 4.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
Choroti SK 7

In disposition the three tribes show great differences. The *Choroti* are pleasant and cheerful, and display to a high degree that humorous spirit which is often characteristic of the Indian even when he looks serious. They are lazy and carefree and love amusement, feasting, dancing, and games above everything. When the Choroti Indian has plenty of food and algaroba beer for the moment, he makes merry and eats and drinks as much as he can, but has no thought for the morrow and does not store provisions like the more advanced Chaco tribes. This particularly holds true of the men; the women, who in general are more industrious, show more forethought in this respect, collecting wild fruits in great quantities when they are in season, and keeping the seed-corn till the following sowing. But on the whole poverty is an outstanding feature of the material culture of the Choroti, and this is no doubt due to a great extent to their own character.

The Choroti are — at least nowadays — a peaceful people, and in the insignificant wars they have sometimes waged with the Mataco on the other side of the river, they have manifested very little organization or discipline. As I was told by settlers on the Pilcomayo, the Choroti were formerly more warlike, and like other Chaco tribes, they were even in the habit of scalping those enemies whom they killed during their raids.

The *Mataco*, although anthropologically closely related to the Choroti, differ from them considerably in character. The Mataco Indian is serious, taciturn, and gloomy, and in consequence more addicted to religion and superstition than his brother the Choroti Indian. At least nowadays, when the Indians are strongly influenced by European civilization, the Mataco Indian will not make a reliable servant and companion. Cleanliness is not a particular characteristic of the Choroti, but the Mataco are probably the dirtiest of all Chaco tribes. This too may in part be a consequence of their contact with the whites. On the other hand, the Mataco are more industrious and energetic than the Choroti, and accordingly, in their wars, have proved more valiant and capable of more organization than their primitive neighbours. In these respects the Mataco, at any rate the Bolivian tribes, resemble their neighbours the Tobas more than the Choroti.

As to the *Tobas*, their moral qualities and disposition have been described with much unanimity by many travellers. Nearly all have characterized them as bad, ferocious, treacherous, thievish, etc., qualities which they have especially displayed towards the whites. Typical on

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6
Toba SI12

tive fashion, and, according to Nordenskiöld and Karsten, such agriculture as the Choroti engage in, is still on a very inconsiderable scale. Nowadays, however, these Indians cultivate — although not to any great extent — the following plants, viz.: pumpkins, cucumbers, water melons, maize, beans, manioc, sweet potatoes, tobacco and cotton.[1] Their only agricultural implements consist of digging-sticks of hard, heavy wood, and a kind of paddle-like, wooden spades. A typical digging-stick is reproduced in fig. 27.

It is probable that the Choroti originally had no other domestic animals than dogs, and the only tame animals I personally saw among this tribe were dogs and fowls. Those of the Choroti Indians who are living in the neighbourhood of the Pilcomayo possess, beside the animals mentioned, also sheep, goats, cattle, horses and cats. Sheep-rearing has now come to be of great importance to the Indians, who use the wool as material for mantles, fillets, etc.

As mentioned, the Choroti are a nomadic people. Their changes of location may be due to various circumstances. When pasture is exhausted in one place, they must look about for another; they move on to more profitable fishing-waters, or wander into regions that are rich in game and wild, edible plants. But there may also be other, and quite different, reasons for the Choroti's leaving their old abodes. In epidemics, when deaths are plentiful, it happens that the Choroti abandon their villages, and this they may also occasionally do if they are apprehensive of visits from whites (see pp. 47 and 48). In a first-rate monograph, Dr. Ragnar Numelin has exhaustively analyzed the causes governing the nomadic instinct in primitive peoples. As re-

Fig. 131. Cord on which fish are strung by means of a large needle of hard, heavy wood. This kind of carrying-gear is very common among the Choroti. The specimen here reproduced originates, however, from the Toba (neighbours of the Choroti). Gran Chaco, Bolivia. $^{8}/_{6}$. Riksm. 03. 3. 766.

[1] Nordenskiöld (11), p. 29.

C 241
C T [227]
C 231
C 361 166
C [73]

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better part of an hour, and when I was allowed to put on my clothes again, my body was full of large, red, marks from the sucking. The two worthies entertained me during the whole doctoring process with a lively conversation which I did not understand. From the pantomimic show I could, however, gather that it was a consultation. For a fee I gave one of the physicians a shirt and the other a pair of tight-fitting drawers.»[1]

As mentioned before, in case of illness the Choroti try to back up the work of the medicine man by dancing; such dancing is then regarded as magically counteracting the influence of the spirit of the illness.[2] The spirit of the illness is by the Choroti called »mohsek ihitek», i. e., the arrow-shooting spirit, which, as I have pointed out in the foregoing, signifies that the Indians believe that the »mohsek» in question has the power of causing illness by arrow-shot. The belief that illnesses could be caused by »fairy-darts» is met with among a number of different peoples, and, as we know, was formerly common also in Sweden.

The Choroti also try to cure themselves of illnesses by internally taking medicines consisting of decoctions of herbs, etc. It is, nevertheless, possible that the Indians themselves regard these, which we consider natural, remedies as being magical.

When an epidemic disease causes many deaths in a Choroti village, it is the practice of the Indians to burn the huts and remove to another site. This they do, either from fear of the spirits of the dead,[3] or in order to dodge the attack of the spirit of the disease.[4]

On the death of her husband, a Choroti widow cuts off her hair and burns it, and paints her face black with soot. We may take it that these signs of mourning also are of magical import. As an instance of this, the Choroti say that widows cut off their hair so that it shall not be a means of their husbands' spirits molesting them.[5]

One evening when after a long day's shooting I arrived at the Choroti village situated near our camp at Tatarenda, I was met by the sound of monotonous singing, muffled drumming, and the noise of magic rattles.

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[1] Nordenskiöld (13), pp. 95 and 96.

[2] Karsten (1), p. 14.

[3] Karsten (2), p. 30.

[4] Cf. Karsten (1), pp. 32 and 33.

[5] »When I asked the Chorotis why a widow cuts and destroys her hair, I received the answer that the dead husband, who wants his wife to follow him to the grave, is believed to attack her through the hair; in order to rid herself of this danger she shaves it off.» Karsten (4), p. 62.

sticks, in the holes that have been made, in order to keep them from 301
closing up. After the healing of the wound, these plugs are, however 304
taken out, and it is only when the boys have reached the age of puberty,
that the ear-lobe is gradually distended by means of plugging with a 301
succession of ear blocks, or ear-lobe discs, of increasing sizes. Only youths 304
of mature age, and men, are allowed to take part in certain religious 789
dances. At the performance of these, it is of especial importance to be [884]
protected from evil spirits. According to the belief of the Indians, ear discs afford them such protection,[1] and it is therefore possible that this is the reason why the boys begin wearing ear discs only after having attained puberty. For reasons which I shall explain below, I consider that the *piercing of the ear-lobes by no means always implies wearing of ear-lobe discs.* Among the Choroti, the ears of little girls are often pierced in the [562]
same way as in the case of the boys[2] (see the woman with pierced ear-lobes in fig. 22), *but never once did I see a Choroti woman wearing discs in her ears,* nor is there in the literature on these Indians any photographic evidence to be found, as far as I know, of Choroti women wearing ear discs. Further; neither Baron Erland Nordenskiöld,[3] nor Doctor Rafael Karsten, both explorers who have lived for a long time among the Choroti, are now able to recollect with any certainty having seen any Choroti woman wearing ear discs.

To cause bleeding by perforating the skin, has among the Chorotis[a] — as among other tribes in the Chaco — a magic significance, and the 304
possession of many scars is considered a great advantage. Thus, for 755
instance, the Chaco Indians will with ostentation and satisfaction show even scars from bites of the palometa fish. When the Choroti believe themselves possessed by some evil spirit, they prick themselves with sharp-pointed bone awls, and imagine that the spirit leaves the body with the outflowing blood. About this custom, Karsten writes: »If the arm fails or trembles in pulling the bow, its weakness is, according to the belief of the Chorotis, due to the presence of a mohsek in the blood and they think that the evil demon will leave the body with the blood drawn. The [751]
scars left by the cuts are kept up with care and shown with satisfaction,

[1] Karsten (4), p. 124, and Grubb (1), p. 72.

[2] Nordenskiöld observed in a Choroti village that *all* the girls had their ears pierced. According to a letter of his, dated 13 May, 1921. Rockelstad collection of manuscripts, volume 1921, letter N.

[3] According to letter referred to in footnote 2.

[a] [should be Choroti. - Analyst]

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Chiriguano SF10

Ci 304 755 751

almost with pride. *Evidently it is thought that the very scars afterwards act as a sort of charm against the spirits.*'[1]

If scars left by wounds are considered to possess desirable, magical properties, it would easily be supposed that perforations that have been kept open must possess the same properties in a greatly enhanced degree. Among the Chiriguano, neighbours of the Choroti, the actual piercing of the lower lip constituted the most important of the ceremonial acts performed on the boys on their having attained puberty, and among the Chané — whose culture is akin to that of the Chiriguano — not only was the lower lip pierced on this occasion, but the boys were also given other wounds on the body.[2]

Co 881 304 171

Ci 304 789

From what I have adduced above, it will therefore be seen that, according to the belief of the Indians, *the making of punctures or perforations on the body, has in itself magic effects, and, consequently, that these magic effects are not believed to arise with the fixing of some ornamental object of magical character — e. g., a tembeta, or an ear disc — into the perforation.*

Ci 304 789 562

This being so, here, in my opinion, lies the explanation of the fact that Choroti girls sometimes have pierced ear-lobes, although it has never *with certainty* been shown that they ever wear ear discs. On the other hand, from reasons I shall present below, it is *probable* that old Choroti women, with distended ear-lobes, *exceptionally* do wear ear discs.

I myself, as well as other investigators of the Chaco peoples, have seen elderly women among the Choroti with holes in their ears so large that one was forced to suppose that the lobes had been stretched in some way or other. Such stretching, however, may not *necessarily* be due to the wearing of ear blocks, but *may* have been produced by manual manipulation. That, by such means, perfectly monstrous distension of the soft parts of the body can very well be brought about, is proved by, among other things, the practice of the Hottentot women of lengthening out — merely by frequent pulling — the labia minora into an enormous size.[3] A similar stretching of the hole in the ear-lobe might, from the Indians' point of view, have for its object the increasing, proportionately to its size, the magic properties of the hole. Among the Incas, the size

[1] Karsten (4), p. 137. Italics by von Rosen.
[2] Karsten (4), p. 200.
[3] von Luschan (1), p. 378.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

776 [764] character.[1] When there has been a death in a village, certain precautionary measures have to be taken in order that the spirit who caused the death may not in some way or other work further evil.

But also on all other possible occasions the spirits are capable of working harm, indeed, Karsten is of opinion that the Indians, even when doing such commonplace acts as eating and drinking, fear that malicious spirits may surreptiously effect an entrance into them along with the food or drink.[2] That the Indians have this belief is not so very remarkable. Similar conceptions are to be found among many peoples in different continents, and have also been widely spread in Europe. To mention one instance; in olden times on yawning or sneezing there was the custom of making the sign of the cross before the mouth, a custom founded on the fear that the devil or some of his kindred should slip in through the open mouth.

●751 As a means of protecting themselves against evil spirits, or for securing, in a magical way, other advantages, the Choroti make use of a variety of devices, the most important of which are the covering of the body, painting of the face, dyeing textiles and other objects red, tattooing, wearing of amulets and certain ornaments, singing, blowing of whistles and shaking rattles, beating of drums, dancing, games of hazard, cutting or pulling out of hairs, and blood-letting.

The custom, previously mentioned, of the girls at their first menstruation keeping their heads covered with a cloth, is an instance of the first-mentioned magical means of protection.

302 751 At dances and lovers' meetings the Indians paint their faces (see page 78), but they adorn themselves by face-painting also on other occasions. As an instance, men as well as women usually had their faces painted when visiting us in our camp. At the time we took this to be a manifestation of Indian vanity, but after having read Karsten's detailed account of the reasons for painting the face among the Indians, I am more inclined to the belief that this painting had been applied as a protection against such unknown spirit forces as might possibly threaten them in the camp of the whites.

831 302 751 That painting of the face is done at dances and meetings of a sexual character, is a circumstance connected with the Indian belief that occasions

[1] Karsten (1), p. 36, and (4), p. 17.
[2] Karsten (3), p. 305.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

of that kind are especially apt to make it easy for the spirits to acquire possession of human beings. When a woman paints her face, that fact may, therefore, indirectly constitute a sign that she desires sexual intercourse, although the painting may perhaps have been done for the magical reasons above indicated.[1]

On page 58 I have remarked that on a reed-casing for keeping ostrich plumes the holes and the edges of the lids were painted red. This red-painting cannot very well be of a decorative character, seeing that there is not much of the paint visible when the lid is closed. According to my opinion, it is very probable that the paint has been applied in order to protect the delicate ostrich plumes contained in the casing from sustaining harm from evil spirits. The fact is that there is, among the Indians, a wide-spread belief that decay and similar processes are caused by evil spirits, on account of which it has been customary among certain Indian tribes to paint not only corpses but also grave equipment with red paint for the purpose of preservation against decay. And we also possess positive evidence that among certain Indian tribes the custom prevails of providing the property of the living with a similar magically protective, painting.

When through Karsten's paper on Indian conceptions as to the significance of painting,[2] my attention had been drawn to these circumstances, I took to examining most of the objects I had found as grave furniture at Quebrada del Toro and Puna de Jujuy (Argentina) in order to ascertain whether any of these objects had been painted before being put with the dead.[3] This examination revealed that nine wooden objects seemed to be painted all over with red paint, but as I, owing to the objects having lain such a long time in the ground, was unable with certainty to decide whether these objects really were painted, or whether their red colour was due to the natural colour of the wood, I had the objects in question submitted to chemical examination. It was then established that the objects were painted, and that the paint consisted of ferrix oxide, almost pure,[4] (so therefore not uruku, which is prepared from Bixa Orellana).

[1] Cf. Karsten (4), Chap. I.

[2] Karsten (4), Chap. I.

[3] As a result of the fact that all the ethnographical and archæological collections of the Riksmuseum are stored in most unsuitable premises, it has not been possible to find all of the objects.

[4] Analytical report No. 211954, Chemico-Technical Bureau (Kemiskt-Tekniska Byrån).

172 Particulars of the objects in question are given in the table here below:

Objects painted all over with red paint, found by the author in ancient Indian graves at Casabindo. Puna de Jujuy. Argentina.

Rikem. coll. No.	Class of object	No. of fig. in von Rosen (10)	No. of page on which object is mentioned in von Rosen (10)
03. 3. 6797	Long handled spoon	—	38
03. 3. 6836	Pointed stick	53	37
03. 3. 6809	Distaff	—	31
03. 3. 6819	Small club (fish club?)	42	34
03. 3. 6833	» » » »	41	33
03. 3. 6830	Wooden knife	39	38
03. 3. 6871	Miniature bow	45	34
03. 3. 6873	Fragments of arrow shaft	-	35
03. 3. 6831	Mesh spacer	39	32

304 751 On page 72 et seq., I have already described the manner in which the Choroti tattoo themselves, and also pointed out that this tattooing is of a magical character whilst at the same time this practice, like the painting of the face, is to a certain extent connected with the sexual life of the Indians. It is highly probable that not only the painting, but also the tattooing, of the face among the Choroti is done in order to prevent evil spirits from entering the body by way of eyes, nose, mouth and ears.[1] The arrow-like signs that sometimes are found as ornament done in tattooing or painting among the Chaco Indians (see for instance fig. 66), are, according to Karsten, in some way connected with the circumstance that the spirit of illness, called »mohsek ihitek» (i. e., the arrow-shooting mohsek) uses arrows for working harm upon people, for which reason arrows may be considered as amulets.[2] This, the Indians' way of looking at things, corresponds to the old saw: »like cures like», or »taking a hair from the dog that bit one».

531 751 Figures and ornamental signs, incised or burned-in, on calabashes for household use (figs. 127, 129—132) as well as on magic rattles of calabash (figs. 170 and 181), are, at least in certain cases, to be regarded as magical protective devices against evil spirits.[3] The significance of two figures, resembling human beings, carved on the magic rattle in fig. 181.

[1] Karsten (4), pp. 8 and 10.
[2] Karsten (4), pp. 190 and 191.
[3] Karsten (3), p. 179.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

I cannot tell, but from an analogous carving from the Lengua it is very probable that they represent spirits.[1]

Most rattles contain seeds, and in many of them are also found a large number of metal fragments (see synoptical table below). The latter as a rule consist of small, square pieces of tin plate, for the most part with a side of from 5 to 15 millimetres. Bits of glass do not unfrequently occur in the rattles, although never in any great numbers; generally only a few bits of glass are found in any one rattle. In the Chaco, bits of glass are naturally extremely rare. In the rattle reproduced in fig. 181 were only found bits of tin plate and one cactus spine. Although this rattle belongs to the handle hole type (see pp. 148, 149), it nevertheless has a hole in the bottom, with a plug of the kind I have described in connexion with the magic rattle, fig. 170. Professor Robert Fries has been kind enough to examine the different kinds of seeds that I have found in magic rattles, as well as in the bag mentioned below, and he then determined the presence of a species of Canna, a leguminous plant, a species of Convolvulaceæ, one of Sapotaceæ and a Smilax. Several kinds of seeds could not be identified from lack of material to compare them with.

Synoptic table of contents in magic rattles from the Choroti.

Riksm. coll. 03. 3.

No. of rattle	Type of rattle	Contents
386	Plugged hole through bottom. Carrying cord (fig. 170).	Seeds (Smilax and undetermined), 1 dark blue piece of glass.
385	Ditto.	Seeds (Smilax and Canna), 2 bits of zinc plate, 1 spiral spring of iron, 2 cactus spines.
390	Plugged hole through top of handle, ditto through bottom. No carrying cord. (fig. 181)	Nine bits of plate iron, one cactus spine.
384	Like foregoing, but no hole at the bottom.	Seeds (Canna and undetermined), 2 bits of plate iron.
387	Ditto.	Seeds (Smilax, a leguminous plant, and of unknown species), 34 black glass beads, 1 blue glass bead and 4 yellowish-green bits of glass.
388	Ditto.	Seeds (Convolvulaceæ and unknown), 1 piece of zinc plate, and 1 uncoloured piece of glass.

From a Choroti I obtained by barter a small bag of red cloth (Riksm. 03. 3. 391), abundantly wound round with caraguatá string, in which he said he used to keep the things that he put into magic rattles.

[1] Grubb (1), p. 74, and fig. a on plate following p. 76.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Steinen,[1] Koch-Grünberg[2] and Karsten[3] have made specially thorough research into questions connected with this matter.

From primitive peoples it is, however, exceedingly difficult to obtain thoroughly reliable information. In order to get rid of a tiresome questioner, a negro, or an Indian, will often reply in the way he thinks most pleasing to his interrogator. Information received by means of an interpreter, is not unfrequently unreliable. This explains how statements which are absolutely erroneous have found their way into the works of even the most painstaking ethnographers. Another pitfall consists in drawing hasty conclusions based on analogies. There is this to be remembered; that primitive peoples' process of thinking sometimes runs along lines which deviate entirely from those of civilized man, for which reason conditions which, to us, appear analogous may, to the primitive mind, not necessarily appear as being in any way connected.

Although it has not yet been conclusively proved that all Choroti ornaments are of a magic character, it is nevertheless not improbable that such is the case. About many of the ornamental objects of the Choroti there are thoroughly trustworthy proofs as to their magic character. When from two or more members of a tribe circumstantial and practically identical, accounts of the magic properties of some ornamental object have been obtained, there can, of course, be no hesitation in accepting that the object in question is, by the Indians, regarded as a kind of amulet.

Among the finest of Choroti ornaments possessing a magic character I am inclined to class the frontlets and hair-nets of red woollen fabric (figs. 41, 46 and 47) that the Choroti use on occasions of especial importance. Several Choroti stated to me that these full-dress articles of apparel were worn not only as ornaments, but also as charms against evil spirits, and the same belief prevails among the Lengua as regards *their* ornaments of a corresponding kind (see fig. 42).[4]

That the Choroti regard their ear-lobe discs (see figs. 53—55) as possessing magic properties, I have already stated in connexion with my account of the character of those ornaments (pp. 62—66).

[1] E. g., von den Steinen (2).
[2] E. g., Koch-Grünberg (3).
[3] Karsten (4).
[4] Grubb (1), pp. 70 and 71.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

As regards snail- and mussel-shell necklaces (figs. 56—58) it should be specially mentioned that those of the first-named kind, at least, are by the Choroti looked upon as amulets for warding off illness and other evil things.[1] It is not improbable that necklaces made out of glass beads, which have been obtained from the whites, are also held to be amulets. This because of the fact that, among many primitive peoples, the belief has been observed that such glass beads as in modern times they have acquired by way of trading[2] possess magic properties,[3] as well as do the glass-[4] or stone beads[5] that they themselves have found in ancient dwelling-site deposits or graves.

Occasionally the Choroti wear anklets of birdskin, or ostrich (Rhea) feathers tied together (fig. 59). On page 71) I have mentioned that these anklets are not exclusively ornaments, but that they also serve a purely practical purpose. The fact is that the Choroti, as well as other Chaco Indians, regard them as a protection against snake-bite, in that a snake is more likely to strike at the feathers that are on the anklet than at the leg, or foot, of the one who is wearing it. Karsten states, on the authority of Grubb, that the Lengua for the same reason wear anklets made of feathers. But to Karsten this natural explanation is not sufficient, for he remarks that Grubb might have added that these anklets are, at the same time, looked upon as amulets, because the Indians believe that an evil spirit accompanies the snake venom in entering the foot of a person bitten.[6] Karsten endeavours to show that all feather ornaments are, by the Choroti Indians, regarded as magic objects.[7]

Most primitive peoples ascribe magical properties to many of their belongings. For example, our Viking forefathers largely regarded their weapons and other equipment as possessing magical powers. It is well known that the Vikings believed that, for instance, swords, and other edged implements, in some magic way could give their owners protection against evil spirits. But the main purpose of swords and edged tools was

[1] Karsten (1), p. 139.
[2] See for example von Rosen (1), p. 305.
[3] See fig. 182: 30, 31, and text on pp. 169 and 170.
[4] See, e. g., von Rosen (1), p. 251.
[5] See, e. g., von Rosen (1) p. 300.
[6] »He might have added that they are at the same time regarded as magical charms, since with the snake's poison an evil spirit is believed to enter the foot.» Karsten (1), p. 119.
[7] Karsten (1), Chap. III.

2: Karsten E-5 (1911-1913)1932 S17 Mataco S17
Toba S112
Choroti SK6

M 304 inflammation in the face the girl has to fast for some days after the operation.

M 304 751 Tattooing has a purely magical significance, as may be inferred from the fact that the Mataco and the Choroti women regard it particularly as a protection against disease. Analyzing the custom, we can distinguish at least three factors in it, all of which are associated with magical ideas: first, the scarification or bleeding itself; second, the matter (soot, ashes) rubbed into the wounds; and third, the patterns and marks incised which remain when the wounds have healed. Bleeding and scarification are common practices of purely magical significance among all Indians of South America, and as far as the Pilcomayo tribes are concerned I shall have occasion to mention this custom again in a later chapter. The very scars left after such operations are regarded as a protection against evil spirits. Further, that tattooing is done by means of ashes or soot is certainly not an accident. The use of ashes for superstitious purposes is of frequent occurrence among the Indians, the general idea being that ashes are a prophylactic against evil spirits. The custom of mixing ashes or soot with saliva is significant from the same point of view, for magical virtues are commonly ascribed to the saliva.

M [789]

M [827]

C 304 751 789 All women among the Choroti are tattooed in the same way, that is, have the same marks and patterns applied to the face, and no full-grown woman lacks this tribal characteristic. Since tattooing is regarded as a permanent protection against evil spirits and sickness, it is natural that a woman lacking it should be shunned by the men, but it is not a means of attraction or a »decoration» in the common sense of the word.

T 304 184 [362] As to the *T o b a s*, tattooing or the custom of making indelible marks on the body or the face was formerly in vogue among all Toba tribes as among all peoples of the Guaycurú-group; but the Bolivian Tobas of the present day have dropped this custom, contenting themselves with simple body painting. Tattooing among the Tobas seems to have been limited to the female sex, as indeed is the rule among the Chaco tribes. According to d'Orbigny, the Toba girls were tattooed when they attained puberty and became marriageable. Since the custom is no longer practised by the Bolivian Tobas I have not seen how it is done by them. The procedure, however, is the same as among other Chaco tribes, incisions being made in the face and ashes rubbed into the wounds. As appears from the photographs of some Toba women which Dr. Lehmann-Nitsche took in Buenos Aires in 1899 the tattooing practised by the Toba women was exceedingly elaborate and complicated.

2: Kärsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

The *ear-tubes* which are worn as ornaments for instance by the Choroti, Ashluslay and Toba-Pilagá and which consist of wooden plugs or pieces of cane, sometimes of tremendous size, are likewise nothing but magical charms or amulets. This was clearly indicated by the Choroti, who told me that the ear-discs are worn to prevent the evil spirits, the *möhsei*, from penetrating into the ears. Their hugeness and peculiarity is evidently thought to act as a deterrent upon the spirits, and there seems to be the idea that the larger they are the more efficacious.

The Indians of the Pilcomayo use various kinds of *necklaces*, and it seems to be the rule that among the most primitive tribes, such as the Choroti and Ashluslay, they are more worn by men than by women, among the more civilized Tobas again more by women than by men. Speaking of the dress of the Choroti, I mentioned the large and costly kind of necklace consisting of snail's shells elaborately fashioned into small round buttons with a hole drilled in the centre and closely strung together. The necklace, called *lähslehuésle* in the Choroti language, is not only an ornament but at the same time a magical charm. The Choroti no doubt gave me the true explanation of their original significance when they told me that the necklace is a protection against sickness. The evil spirits, according to the idea of these Indians, preferably attach themselves to the throat or the chest, because catarrhs are very common in the Chaco during the dry season. The spirits are believed to enter into the body through the throat or the breast, but this is prevented by the protecting necklace. Hence, when a Choroti Indian sells his necklace or leaves off wearing it, his comrades say that he will most certainly soon fall ill. The same idea I found prevailing among the Mataco-Nocténes of Bolivia, where such ornaments are worn by both sexes. Thus the son of a chief, who was just at the age of puberty, one day appeared painted red in the face with *urucú*, and with a large necklace which covered the neck and the breast. When I asked the father why his son had put on these things, he answered: »It is in order that he may not fall ill». Both among the Mataco and the Choroti it is customary that children of both sexes go totally naked up to the age of eight to ten years, but nearly always they wear collars and facial paintings which most certainly are not »ornaments» in the civilized sense of the word.

Among the South American Indians in general it is a common custom to tie round a limb, for instance the wrist or the leg, a leather strap or some other kind of band, professedly with a view to making the arm or the leg strong. The Chaco Indians also commonly wear such ligatures

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

way, *and by renewed research among the Indians*, that we shall be enabled to obtain a thorough knowledge of their conception of magic blood-letting by means of awls.

In the foregoing I have mentioned that Choroti bow-staves are sometimes provided with a small skin casing, slipped on, and that on opening one of these casings I found that it contained excrements from some herbivorous animal. It is of course impossible to tell with certainty what the motive was for putting on this skin casing (see pp. 88 and 89), but I think it probable that it was put on the bow for some magic reason. It is noteworthy that it contained excrement. The fact of this being so is a circumstance that, in my opinion, especially points to the casing being of a magical character, for, according to the Chaco Indians' way of thinking, certain excrements possess magic properties and are often made use of in casting spells.[1]

All kinds of illnesses are by the Choroti considered to be caused by evil spirits. As yet, however, we know but little of these Indians' conception of the character and curing of different illnesses. Once Nordenskiöld called in medical aid from a medicine man among the Choroti, and this is how he describes the way in which the medicine man set about it:

»On many occasions, in the villages, I have seen the medicine men practising their profession. One day, among the Choroti, when I was feeling a bit seedy, I called one of those gentry to my camp. Giving out that I had a severe pain in the lower part of my chest, I asked him if he cared to cure me. He promised to come to me in the evening. At nightfall he arrived, accompanied by a colleague. They insisted on being left alone with me. Moberg and Andersson were consequently turned out, and sentries were posted so as to prevent anyone unauthorized gaining access to the hut. For a start, they made me strip to the skin, and then lie down. They stroked me with their hands over the chest, the sides of my body and the stomach, and then they spat on me. After that, they set to blowing on me, and then they laid themselves down and sucked hard at my chest, in particular at the spot where I had complained of the pain. After having sucked for a while, they turned away and pretended to vomit. Whatever they vomited up in this way, they did not show me, but, as they squeezed it between their fingers, it looked as if they had been squeezing worms. This performance lasted, I think, the

[1] See, for example, Nordenskiöld (13), pp. 93 and 98.

755 better part of an hour, and when I was allowed to put on my clothes again, my body was full of large, red, marks from the sucking. The two worthies entertained me during the whole doctoring process with a lively conversation which I did not understand. From the pantomimic show I could, however, gather that it was a consultation. For a fee I gave one of the physicians a shirt and the other a pair of tight-fitting drawers.»[1]

As mentioned before, in case of illness the Choroti try to back up the work of the medicine man by dancing; such dancing is then regarded as magically counteracting the influence of the spirit of the illness.[2] The spirit of the illness is by the Choroti called »mohsek ihitek», i. e., the
753 arrow-shooting spirit, which, as I have pointed out in the foregoing, signifies that the Indians believe that the »mohsek» in question has the power of causing illness by arrow-shot. The belief that illnesses could be caused by »fairy-darts» is met with among a number of different peoples, and, as we know, was formerly common also in Sweden.

757 The Choroti also try to cure themselves of illnesses by internally taking medicines consisting of decoctions of herbs, etc. It is, nevertheless, possible that the Indians themselves regard these, which we consider natural, remedies as being magical.

731 When an epidemic disease causes many deaths in a Choroti village,
361 it is the practice of the Indians to burn the huts and remove to another site. This they do, either from fear of the spirits of the dead,[3] or in order to dodge the attack of the spirit of the disease.[4]

764 On the death of her husband, a Choroti widow cuts off her hair and
765 burns it, and paints her face black with soot. We may take it that these signs of mourning also are of magical import. As an instance of this, the Choroti say that widows cut off their hair so that it shall not be a means of their husbands' spirits molesting them.[5]

769 One evening when after a long day's shooting I arrived at the Choroti village situated near our camp at Tatarenda, I was met by the sound of monotonous singing, muffled drumming, and the noise of magic rattles.

[1] Nordenskiöld (13), pp. 95 and 96.
[2] Karsten (1), p. 14.
[3] Karsten (2), p. 30.
[4] Cf. Karsten (1), pp. 32 and 33.
[5] »When I asked the Chorotis why a widow cuts and destroys her hair, I received the answer that the dead husband, who wants his wife to follow him to the grave, is believed to attack her through the hair; in order to rid herself of this danger she shaves it off.» Karsten (4), p. 62.

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their rattle gourds, whilst the men provided with drums beat them. The girl in whose honour the dance was held was standing motionless and silent at the entrance of the hut reclining against the wall and had to remain so during the whole ceremony. Sometimes, when towards evening she got tired and was on the point of falling asleep, one of the medicine-men came up to her and shook his rattle close to her face as if to keep her awake. The ceremony began in the afternoon and was continued with short pauses throughout the whole evening until midnight. I was informed that as long as the dance goes on the girl need not be veiled, but as soon as the conjuration is finished for the night she must have her face and her whole body well covered. During the whole period that the dance is performed she is moreover obliged to fast, avoiding fish and meat and living only on some light vegetable food.

I may add that all the men who took part in the ceremony were painted on the face in one way or another. Some of them simply had the face coated red with roucou or black with charcoal, whereas others had X-shaped or other patterns painted on the cheeks. The men's faces are always painted in this way at the conjurations of the Indians, and these paintings have a purely magical significance.

The drinking of algaroba beer also forms part of the magical practices at the feast, but it is strictly limited to the men.

The object of all these ceremonies is to protect the girl against the evil spirits, the *möhsek*, by which she is believed to be particularly attacked during her unclean condition. The spirits try to enter into her through the face — especially through those parts where there is a natural opening of the body, such as the eyes, the ears, the nose, and the mouth — and also through the ventral parts, the consequence being, if they succeed in doing so, that she will fall ill and die, or become supernaturally pregnant and give birth to a monster. It is in this way that the Indians account for the birth of those deformed children which they kill directly after birth. To prevent such frightful accidents the girl's head and body are covered after the conjuration is finished for the night. By means of the dancing, chanting, drumming, etc. the evil demons who take an interest in the girl and swarm about her are conjured and rendered harmless. According to the idea of the Indians she is not only protected for the time being against their attacks, but she will also retain a certain power of resistance against them in the future.

The puberty of a girl is not celebrated in all cases among the Choroti with so many ceremonies as in the case just described, but the

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776 754 825 himself into a jaguar and, appearing in this disguise, kill people. Similarly, an evil wizard is believed to be able to send his soul into a horse, in which shape he will kill the person whom he wishes to bewitch. The horse in fact is the particular shape in which the tutelary spirit of a sorcerer is believed to appear, and is therefore looked upon as a demoniacal animal. Of other animals which are looked upon with superstitious fear the deer must be especially mentioned. This shy and innocent animal is regarded as an evil spirit, a *möhsek*, and its flesh is never eaten by the Choroti. On this point these Indians share a belief which, curiously enough, is met with among many tribes in different parts of South America. In the noiseless movements of this animal and the mysterious rapidity with which it disappears into the forest there is in fact something »ghost-like», which is apt to awaken superstitious awe in primitive minds.

754 825 Just as a sorcerer is supposed to be able to change himself into a jaguar when he wishes to harm other people, so he is also believed occasionally to assume, for the same purpose, the shape of a venomous reptile, for instance that of a rattlesnake. The bite of a venomous snake is generally attributed to the mysterious operation of an evil wizard.

776 823 Of spirits inhabiting what we should call inanimate objects the spirits of the *stones* are of particular interest. In order to understand the ideas which the Choroti entertain in this respect it should be borne in mind that in the interior parts of the Gran Chaco, and particularly in the country inhabited by the Choroti, stones are extremely rare or almost unobtainable. It is in part due to this fact that the Choroti regard stones and pebbles in general with superstitious dread and would never, for instance, put on a necklace in which a stone of some kind entered as a decoration. The reason which they gave me for this aversion was that an evil spirit, a *möhsek*, dwells in the small stone and would infallibly invade the person who hung it on himself. The explanation was, moreover, added, that when a sorcerer bewitches an Indian he avails himself of a pebble-stone which he throws against his victim making him fall ill and die. Similarly, when the medicine-man cures the patient, he extracts [755] the disease-demon in the form of a small stone. In other words, stones are shunned because they form one of the magic arrows which the sorcerers use to kill or harm their enemies.

753 The theory which the Choroti have formed about *sickness* and *disease* has appeared from some of the above statements. Sickness, like epidemic disease, is always due to supernatural operation. It is caused by a demon, a *möhsek*, directed by a human sorcerer. Wizards cause sickness by

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throwing spells embodied in certain material objects, small stones, cactus thorns, bones, certain insects, etc. We should say that it is the stone, thorn, etc. that causes the pains felt by the victim, but its real cause is the mysterious demon embodied in the object. This appears most clearly from the conjuration with which the medicine-man tries to remove the evil and in which the demon is directly addressed.

An epidemic is likewise caused by evil spirits, but independently of the operation of a wizard. Among these spirits there are real death-demons, who in the imagination of the Indians wander about the village carrying off one Indian after the other. The Indians are aware that these diseases, among which are small-pox, malarial fever, dysentery, etc., are imported by the whites, and they consider that their own medicine-men are powerless against them.

M 776 [177]

The animistic beliefs of the *M a t a c o* are much the same as those of the Choroti, but it is evident that the Mataco-Noctenes of Bolivia have been considerably influenced in their religion by the Tobas, as is the case in their general culture. The Mataco make a distinction between two kinds of lower spirits. The commonest kind of spirit, although not the most feared, are those whom the Indians call *aittáh*, generally adding the attribute *slámsa* or *slahsa* which means »small». These are of exactly the same nature as the majority of the spirits whom the Choroti call *mōhsek*, although in external appearance they more resemble the *peyák* of the Tobas. Whereas in the imagination of the Choroti the *mōhsek* have the shape of old men, the *aittáh* of the Mataco — and similarly the *peyák* of the Tobas — have the shape of young boys (*nátses*), but at the same time they are provided with wings, so that they can move as rapidly as the wind from one place to another. They are invisible, countless in number (*vúh*) and evilly-disposed (*tavakái*) towards mankind. *Vúh aittáh tavakái*, »there are numberless evil spirits», the Mataco are in the habit of saying when speaking of the world of demons. The ideas they entertain about them are the same as those of the Choroti. During the day these demons are not dangerous to men, for then they have retired far away to the plains and the forests. But as soon as night draws near they arrive in great numbers, although not in visible shape, dancing round the villages and huts which they like to visit with sickness and misfortune. The Indians try to keep them off by dancing, when they imitate the very movements which they fancy the demons make, by drumming, and by performing conjurations to cure patients already attacked by the demons.

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by another name: sometimes it is called *nihléle*, in other cases again *pini*, words which have their equivalents in the Mataco and the Toba languages in the terms *aláh* and *kaipák* respectively. In regard to all these words we have to remember that they belong to the particular mystical terminology of the sorcerers and cannot exactly be translated into any civilized language. The Indian »arrow» or »splinter» is half an inanimate object, half a live being, half material, half spiritual, half natural, half supernatural. Whatever it is, it is to the primitive mind the most real thing possible, because its existence is manifested by its dreadful effects.

The Choroti Indian, who works evil against his fellow-tribesmen by throwing spells against them, is called a wizard (*ayïeu*). The expression for the nefarious operation itself is in the Choroti language *páhu ahuli sikiätsä*, (»to work evil against a fellow-man by means of witchcraft»). For the purpose of bewitching another Indian the sorcerer tries if possible to get hold of something that has been in close contact with the victim's body, for instance a single hair, a little saliva when he has spat on the ground, something of his excrement, a piece of his clothes, etc., and uses these things as vehicles for his curses. But even a medicine-man or curer, as we have seen, is called *ayïeu*, and there is thus no essential difference between an Indian practising black or nefarious magic and one practising white magic. A man in possession of a guardian spirit may use his art either for the benefit of his fellow-tribesmen or to harm them, according as to whether he regards them as his friends or as his foes.

Besides rheumatism, affections of the throat and the chest, arising from chill, are very common among the Chaco Indians during the dry season. The Indian explanation invariably is that an evil spirit has entered into that particular part of the body where the pain is felt. If a Choroti Indian suffers from head-ache and I ask him what is the matter with him, he will answer that he has a *möhsek* in the head; if he suffers from a catarrh, he will point to his throat or his chest and say that a *möhsek* has taken its seat in either of these parts of the body. In a village I once met an old woman who had her right fore-arm paralyzed, evidently in consequence of a fit of apoplexy. She explained to me that the arm had been seized by an evil *möhsek*, and had tied a dirty woollen band round the arm at the wrist so as to prevent the evil spirit from penetrating further into the body.

If the demon is allowed to complete his work of destruction in the

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

equipment in large carrying-nets and bags; at such times the men march along unburdened, carrying in their hands only bow and arrows. This is, however, easily accounted for, as on the trek the men have always to be prepared to kill game for procuring food. If they, like the women, were hampered by heavy loads, they would practically have no chance at all of taking a ready arrow shot at game encountered on the march. 462

I never once saw grown women amusing themselves with any games or sports, whereas this is frequently the case with the men. The chief occupations of the latter consist of hunting, fishing, the gathering of wild honey and the manufacturing of various weapons and implements (see the above table of division of labour as between the sexes). The men give considerably less time to actual labour than the women, and to me it seemed as if the life of Choroti wives was hard and laborious, whilst that of the men, as a rule, was pretty light and easy-going.

Nevertheless, the men are by no means hard or cruel to their wives, and it appeared to me as if the women took it as a matter of course that they had to work for their husbands and children in the way they did, and, generally speaking, they seemed quite content with their lot in life. Indeed, I noticed many instances of real domestic happiness. 593

Parents bear great love to their children. These, when quite small, are carried by their mothers in a broad strip, or piece, of cloth in the way fig. 180 shows. The Choroti do not have many children; it is only seldom that the number of children exceeds four. According to Nordenskiöld, they are given names only when old enough to answer to them. The same author has noted down the following Choroti names, of which the first three are men's names, and the remainder women's names: Yóseliané (the killer of foxes), Hótenie (Mataco), Éstiähua (a gallinaceous bird), Hayku (not sweet), Kósoki (suffering from skin eruptions), Aséshnialo (women in plenty).[1] [854] [462] [551] [553]

Parental authority does not amount to much, and actual bringing up and discipline is entirely out of the question. In cases where parents attain so great an age that they become irksome to their children, it is not unknown for the latter to kill them. Nordenskiöld's interpreter, Flores, once witnessed a Choroti man burning an old and decrepit woman alive. Old men and women, who are suspected of working evil by witchcraft, are sometimes burned alive, and therefore it is possible that belief in the 888 754 683

[1] Nordenskiöld (13), p. 85.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 180. Husband and wife with baby. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[888 754 683] supernatural, of some kind or other, plays a leading part when children kill their aged parent.

622 Every village is ruled by a chief or headman. According to the observations of some investigators, these headmen do not nowadays possess any great power or authority, but among the Choroti whom I visited in 1901, the chief's authority was by no means inconsiderable. For example, it only needed my arranging with him that the Indians were to carry out a certain piece of work, and the work would be done. For the work performed by the Indians I paid the chief in goods, which he allotted among them as he himself thought fit, as it appeared. In war, each village [643] contingent is under the leadership of their headman. It was stated by the soldiers of Fort Crevaux that all Choroti used to be under a paramount chief, whose authority over all the other chiefs principally consisted in his being entitled to taking chief command in war. The office of village headman as a rule descends from father to son.

622 554 That certain Choroti chiefs used to be held in greater respect than others was made evident to us at a visit we made to a sugar plantation on our return journey to Salta. A large number of Choroti had just then

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

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anétsias vuh, exerting a certain social influence. Chieftainship however, among the Choroti is rather nominal than real; even the »great chief» is in fact destitute of power, although in relation to other tribes and to the whites he exercises certain representative functions. Thus when commissions from the sugar factories arrived in the Chaco to negotiate about the sending of Indian labourers to northern Argentine, they had to deal with the chiefs, who through the medium of interpreters gave them answers on behalf of their people. But even the »great chiefs» cannot compel anybody to work, nor can they interfere with the private affairs of the families, in which the father and the mother have full liberty of action. Still more imaginary is the power of the village chief, who is nothing but a *pater familias* enjoying a certain esteem. He cannot command anybody, but merely represents his village community in relation to outsiders, just as the »great chief» represents the whole sub-tribe.

The dignity of chief is not hereditary among the Choroti, nor apparently among the Mataco. When the chief dies, the oldest family fathers of the community assemble under the big algaroba tree which serves as a club-house and elect a new chief, the election taking place in connection with a drinking-feast.

Old men are generally held in great esteem, and the chiefs are generally, although not invariably, men of advanced age. Among the Choroti, old men are held in particular esteem for superstitious reasons, since they are believed to be changed, after death, into evil spirits. As we shall see later on in the chapter on the religion of the Indians, the spirits of the Choroti are believed to appear in the shape of old men. Since the natural magical power of the human body is increased with advancing age, it is natural that old people are feared, but the supernatural halo which surrounds them of course at the same time is apt to give them social influence. Above all their supposed connection with the spirits makes them qualified to exercise religious functions. Independent of any particular initiation, every old man is credited with the power of conjuring the spirits and is thus always more or less a sorcerer. If therefore we wish to speak of a social distinction among the Choroti, we may say that the sorcerers, called *ayïeu*, are the only members of the Choroti society who in a certain sense form a class of their own or mark the beginnings of a social differentiation. Since, however, every old man is more or less expert in the act of magic and considered able to handle the rattle gourd (*pelite*) or the drum (*usyúk*), the *ayïeu* of the Choroti cannot be called professional sorcerers in the strict sense of the word.

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old men to die a natural death, but when they grow very weakly and sickly they kill them with an arrow-shot in the heart, whereupon they burn them with all their property instead of burying them, which among the Choroti is the general mode of disposing of the remains of the dead. The reason which they gave me for this custom was that if an old man is allowed to die a natural death he will be changed into an evil demon (*möhsek*), who will rage in the village and kill all the people. This, according to their idea, can be prevented by giving the old men a premature, violent death.[1]) In order to understand this custom we must, moreover, take into consideration that to the mind of these Indians *all* aged men are more or less versed in the magic art, *i. e.* are sorcerers, and the spirits of sorcerers are specially feared.

The fact that old men and sorcerers are believed to be transformed after death into evil *möhsek* seems to suggest that these spirits or demons are nothing but disembodied human souls, who have in the after-life been changed into supernatural and mostly evilly disposed beings. As a matter of fact, the death-spirit residing in the grave where a dead body has been buried is called *möhsek* by the Choroti. Like most other primitive peoples the Choroti fear the burial-places because they fear coming in contact with the spirits haunting these places. It seems therefore evident that at any rate the souls of certain persons are changed into *möhsek* after death. The word *möhsek* may therefore be best translated into 'ghost'. The Indians only use it of the disembodied souls or spirits of dead men, but not of the shadow-like »double» of a living person, for which they have no particular word. Even when speaking of a recently departed person they generally simply use the expression *yäl*, *i. e.* »the dead one». *Möhsek* particularly seems to have reference to the spirits of men who died long ago, and these spirits as a rule are more evilly disposed and more feared than the spirits of Indians recently departed.

The Choroti, like other Chaco Indians, do not deify inanimate objects of nature to the same extent as many other South American tribes. Yet

[1]) Nordenskiöld's categoric statement as to the practice of infanticide and parricide among the Choroti therefore is not correct. (»Der Mord beschränkt sich auf den Kinder- und Elternmord»; and: »Wenn ein Indianer seine alte blinde Mutter oder seinen verkrüppelten Vater tötet, so befreit er sie selbst von einem Leben das ihnen eine Last ist und sich selbst von einer Extramühe im Kampfe ums Dasein.» (*Indianerleben*, p. 38). As I have stated above, the killing of parents is limited to old men, and this custom must wholly be explained from the superstition of the Indians. Infanticide again is limited to the cases mentioned by me in a previous chapter.

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there are several evidences of a nature animism, although as a general rule only such objects and phenomena as especially strike their imagination or with which some remarkable incidents are connected, are incidentally or permanently looked upon as being animated by spirits. There are evil demons in the sky, which among other things cause such strange phenomena as eclipses of the moon, of which the Choroti have the same idea as the Mataco and most other Chaco tribes. Other evil spirits of the sky cause drought, which in the Chaco forms the greatest obstacle to a successful cultivation of the fields. The demons keep the rain back, and the Indians in consequence try, during the dry season, to conjure them by drumming, shaking rattles and chanting so as to compel them to release rain. On the other hand, there are demons operating in the violent thunderstorms, although these are generally accompanied by torrents of rain. The Choroti believe that thunder and the flash of lightning are caused by a great number of *môhsek* who are rushing through the air and making an onset upon the village. These spirits are more often called *ahuéna*, »the birds», and thunder and lightning are therefore generally called by the Indians simply *ahuéna*, although the proper name in the Choroti language is *süntini*. Every time a burst of thunder is heard, the Indians, sitting in their huts, begin to shout and scream loudly, in order to frighten away the molesting supernatural visitors. There are evil spirits in the violent whirlwinds and sand-storms so common in the Chaco, as well as in the cold south wind, *niük*, which during the dry season sweeps over the plains and produces rheumatism and chills among the natives, badly equipped as they are against cold weather. The warm north wind again, *ükine*, is sent by »good» spirits. Thus the radical contrast between the cold south wind and the warm north wind, both of which are sent by supernatural agents, has been to the Choroti the main reason for making a distinction between two of the four cardinal points.

Spirits, *môhsek*, are also believed to animate *trees* and *plants* -- bad spirits poisonous and harmful plants, good spirits the beneficial and useful ones. The ideas which the Indians entertain about plant spirits and the customs to which they give rise, are substantially the same among all the tribes, and I shall presently give an account of them.

The Choroti also believe in *animal* demons. Thus they share the belief, held by all Indians in tropical and subtropical America, that a jaguar which attacks Indians or appears under unusual circumstances, is a »man-tiger» *i.e.* a man, generally a sorcerer, who has assumed the shape of this beast. Even in his lifetime a sorcerer may incidentally change

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776 himself into a jaguar and, appearing in this disguise, kill people. Similarly,
754 an evil wizard is believed to be able to send his soul into a horse, in which
825 shape he will kill the person whom he wishes to bewitch. The horse in fact is the particular shape in which the tutelary spirit of a sorcerer is believed to appear, and is therefore looked upon as a demoniacal animal. Of other animals which are looked upon with superstitious fear the deer must be especially mentioned. This shy and innocent animal is regarded as an evil spirit, a *möhsek*, and its flesh is never eaten by the Choroti. On this point these Indians share a belief which, curiously enough, is met with among many tribes in different parts of South America. In the noiseless movements of this animal and the mysterious rapidity with which it disappears into the forest there is in fact something »ghost-like», which is apt to awaken superstitious awe in primitive minds.

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776 Of spirits inhabiting what we should call inanimate objects the spi-
823 rits of the *stones* are of particular interest. In order to understand the ideas which the Choroti entertain in this respect it should be borne in mind that in the interior parts of the Gran Chaco, and particularly in the country inhabited by the Choroti, stones are extremely rare or almost unobtainable. It is in part due to this fact that the Choroti regard stones and pebbles in general with superstitious dread and would never, for instance, put on a necklace in which a stone of some kind entered as a decoration. The reason which they gave me for this aversion was that an evil spirit, a *möhsek*, dwells in the small stone and would infallibly invade the person who hung it on himself. The explanation was, moreover, added, that when a sorcerer bewitches an Indian he avails himself of a pebble-stone which he throws against his victim making him fall ill and
[755] die. Similarly, when the medicine-man cures the patient, he extracts the disease-demon in the form of a small stone. In other words, stones are shunned because they form one of the magic arrows which the sorcerers use to kill or harm their enemies.

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with the Indian himself: when intoxicated by brandy he gets mad and 273
is always ready for fights and outrages; on the other hand, his own 776
native beers comparatively seldom have such bad effects. As a rule they render him happy and joyful, virile and courageous, and make him forget the troubles and hardships of life. This is the reason why, to the Indian mind, there is a *good* deity or spirit residing in the native algaroba beer. But since this deity in the first place inspires the Indian with *virile* qualities, the drinking of this as well as of most other intoxicating drinks is strictly limited to the men. Women never drink algaroba beer, except perhaps some very old women who are freed from the restrictions normally laid upon the weaker sex.

The great drinking-feasts of the Chaco Indians during the »season» 000
will be described later on, as also the ceremonies with which the sacred drinks are prepared.

When the Chaco Indians speak of their »good spirits», however, they T
generally mean spirits of another kind. The medicine-men as a rule 776
speak of these spirits in the singular, meaning thereby a mysterious 756
personal guardian spirit of their own. Such a being is for instance the *peyák nōtta* of the *T o b a* medicine-man, a kind of individual guardian spirit with whom the Indian has entered into a special relation and whom he asks for assistance in sickness and in every necessity. Among the Tobas all professional medicine-men and many of the older men are said to have such guardian spirits; even some of the women, who then exercise the profession of female sorcerers. The more the person in question has acquired power over his or her »good spirit», the more that person is in possession of what we should call supernatural powers. When, for instance, the medicine-man has to cure a sick person, he summons his own guardian spirit and by his aid expels the disease-demon from the patient's body. Similarly, those sorcerers who practise black or nefarious magic are able to harm their fellows only by the aid of their assistant spirits whom they invoke and who will despatch a spirit against their victim.

If a sorcerer wishes to harm another sorcerer, who of course also C
has his guardian spirit, or some other person in possession of such a spirit, 754
he can do so only by fighting and vanquishing the assistant spirit of 776
that person. This was especially made clear to me by the *C h o r o t i* Indians. A sorcerer who wants to kill or harm such a person, I was told, invokes his own »good spirit»; this comes down from the heavens in the

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C 754 776 shape of a horse [1]) — an animal which is regarded with superstition by the Choroti — and will kill the »good spirit» of the inimical sorcerer. The latter, being thus deprived of his assistant genius, will fall an easy victim to his assailant.

C 756 588 776 The guardian spirit is not hereditary but is acquired individually in the course of life and to a certain degree through teaching. The older a person grows, the more power and influence he is believed, by the Tobas, to gain over his *peyák nõtta*; hence the medicine-men are generally men of advanced age. The same may be said of the *Choroti*, who regard every old man as being more or less a sorcerer and endowed with supernatural powers. Since the women are always physically and spiritually weaker than men, they have always more difficulty in obtaining guardian spirits. I only know of a special initiation for women, who dedicate themselves to the exercise of the magic art, in the case of the Choroti. A women who wants to become a sorcerer, I was told, must C 824 eat a raw chirimoya fruit (*Anona chirimolia?*). When ripe, the chirimoya is edible and good; but in an unripe condition it is said to be poisonous, and a person eating of it according to the belief of the Indians will die or fall ill. If however the woman, while she is eating the raw fruit, performs the ceremony *Kausimã* with the magical rattle staffs, she will escape harm, and she will moreover in the future be able to conjure spirits with success. This idea is in fact typical of the initiation ceremonies of the Indians: the woman has been in contact with evil spirits but has been able to resist them, in consequence she has been rendered immune against them and acquired power over them which enables her to use them for her own ends in the future.

I C 776 772 Apart from the fact that the »good spirit» of the Choroti medicine-men is at least in some cases believed to appear in the form of a horse, the »good spirits» are in their external appearance like other spirits. The *Tobas* say that their *peyák nõtta* dwells in the heavens (*piyim*) from where he comes down to assist the medicine-man who invokes him. Similarly the Choroti say that their *mõhsek eis*, when summond by the sorcerer comes down from the sky, but the »sky» (*põle*) is not to the Choroti a definite place like the *piyim* of the Tobas. *Piyim* has developed into a mythological concept: it signifies Paradise or the realm of T 776 772 the dead of the Toba Indians. When a Toba Indian dies, I was told,

[1]) Since the horse was introduced among the Chaco Indians by Europeans, this is not of course an original idea of the Choroti.

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by another name: sometimes it is called *nihléle*, in other cases again *pini*, words which have their equivalents in the Mataco and the Toba languages in the terms *aláh* and *kaipák* respectively. In regard to all these words we have to remember that they belong to the particular mystical terminology of the sorcerers and cannot exactly be translated into any civilized language. The Indian »arrow» or »splinter» is half an inanimate object, half a live being, half material, half spiritual, half natural, half supernatural. Whatever it is, it is to the primitive mind the most real thing possible, because its existence is manifested by its dreadful effects.

The Choroti Indian, who works evil against his fellow-tribesmen by throwing spells against them, is called a wizard (*ayïeu*). The expression for the nefarious operation itself is in the Choroti language *páhu ahuli sikiätsä*, (»to work evil against a fellow-man by means of witchcraft»). For the purpose of bewitching another Indian the sorcerer tries if possible to get hold of something that has been in close contact with the victim's body, for instance a single hair, a little saliva when he has spat on the ground, something of his excrement, a piece of his clothes, etc., and uses these things as vehicles for his curses. But even a medicine-man or curer, as we have seen, is called *ayïeu*, and there is thus no essential difference between an Indian practising black or nefarious magic and one practising white magic. A man in possession of a guardian spirit may use his art either for the benefit of his fellow-tribesmen or to harm them, according as to whether he regards them as his friends or as his foes.

Besides rheumatism, affections of the throat and the chest, arising from chill, are very common among the Chaco Indians during the dry season. The Indian explanation invariably is that an evil spirit has entered into that particular part of the body where the pain is felt. If a Choroti Indian suffers from head-ache and I ask him what is the matter with him, he will answer that he has a *mōhsek* in the head; if he suffers from a catarrh, he will point to his throat or his chest and say that a *mōhsek* has taken its seat in either of these parts of the body. In a village I once met an old woman who had her right fore-arm paralyzed, evidently in consequence of a fit of apoplexy. She explained to me that the arm had been seized by an evil *mōhsek*, and had tied a dirty woollen band round the arm at the wrist so as to prevent the evil spirit from penetrating further into the body.

If the demon is allowed to complete his work of destruction in the

sticks, in the holes that have been made, in order to keep them from 301
closing up. After the healing of the wound, these plugs are, however 304
taken out, and it is only when the boys have reached the age of puberty,
that the ear-lobe is gradually distended by means of plugging with a 301
succession of ear blocks, or ear-lobe discs, of increasing sizes. Only youths 304
of mature age, and men, are allowed to take part in certain religious 789
dances. At the performance of these, it is of especial importance to be [884]
protected from evil spirits. According to the belief of the Indians, ear discs afford them such protection,[1] and it is therefore possible that this is the reason why the boys begin wearing ear discs only after having attained puberty. For reasons which I shall explain below, I consider that the *piercing of the ear-lobes by no means always implies wearing of ear-lobe discs.* Among the Choroti, the ears of little girls are often pierced in the [562]
same way as in the case of the boys[2] (see the woman with pierced ear-lobes in fig. 22), *but never once did I see a Choroti woman wearing discs in her ears,* nor is there in the literature on these Indians any photographic evidence to be found, as far as I know, of Choroti women wearing ear discs. Further; neither Baron Erland Nordenskiöld,[3] nor Doctor Rafael Karsten, both explorers who have lived for a long time among the Choroti, are now able to recollect with any certainty having seen any Choroti woman wearing ear discs.

To cause bleeding by perforating the skin, has among the Chorotis[a] — as among other tribes in the Chaco — a magic significance, and the 304
possession of many scars is considered a great advantage. Thus, for 755
instance, the Chaco Indians will with ostentation and satisfaction show even scars from bites of the palometa fish. When the Choroti believe themselves possessed by some evil spirit, they prick themselves with sharp-pointed bone awls, and imagine that the spirit leaves the body with the outflowing blood. About this custom, Karsten writes: »If the arm fails or trembles in pulling the bow, its weakness is, according to the belief of the Chorotis, due to the presence of a mohsek in the blood and they think that the evil demon will leave the body with the blood drawn. The [751]
scars left by the cuts are kept up with care and shown with satisfaction,

[1] Karsten (4), p. 124, and Grubb (1), p. 72.

[2] Nordenskiöld observed in a Choroti village that *all* the girls had their ears pierced. According to a letter of his, dated 13 May, 1921. Rockelstad collection of manuscripts, volume 1921, letter N.

[3] According to letter referred to in footnote 2.

5†. — *v. Rosen.* II.

[a] [should be Choroti. - Analyst]

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almost with pride. *Evidently it is thought that the very scars afterwards act as a sort of charm against the spirits.*'[1]

If scars left by wounds are considered to possess desirable, magical properties, it would easily be supposed that perforations that have been kept open must possess the same properties in a greatly enhanced degree. Among the Chiriguano, neighbours of the Choroti, the actual piercing of the lower lip constituted the most important of the ceremonial acts performed on the boys on their having attained puberty, and among the Chané — whose culture is akin to that of the Chiriguano — not only was the lower lip pierced on this occasion, but the boys were also given other wounds on the body.[2]

Co [881] [304] 111

Ci 304 189

From what I have adduced above, it will therefore be seen that, according to the belief of the Indians, *the making of punctures or perforations on the body, has in itself magic effects, and, consequently, that these magic effects are not believed to arise with the fixing of some ornamental object of magical character — e. g., a tembeta, or an ear disc — into the perforation.*

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This being so, here, in my opinion, lies the explanation of the fact that Choroti girls sometimes have pierced ear-lobes, although it has never *with certainty* been shown that they ever wear ear discs. On the other hand, from reasons I shall present below, it is *probable* that old Choroti women, with distended ear-lobes, *exceptionally* do wear ear discs.

I myself, as well as other investigators of the Chaco peoples, have seen elderly women among the Choroti with holes in their ears so large that one was forced to suppose that the lobes had been stretched in some way or other. Such stretching, however, may not *necessarily* be due to the wearing of ear blocks, but *may* have been produced by manual manipulation. That, by such means, perfectly monstrous distension of the soft parts of the body can very well be brought about, is proved by, among other things, the practice of the Hottentot women of lengthening out — merely by frequent pulling — the labia minora into an enormous size.[3] A similar stretching of the hole in the ear-lobe might, from the Indians' point of view, have for its object the increasing, proportionately to its size, the magic properties of the hole. Among the Incas, the size

[1] Karsten (4), p. 157. Italics by von Rosen.
[2] Karsten (4), p. 200.
[3] von Luschan (1), p. 378.

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way, *and by renewed research among the Indians*, that we shall be enabled to obtain a thorough knowledge of their conception of magic blood-letting by means of awls.

In the foregoing I have mentioned that Choroti bow-staves are sometimes provided with a small skin casing, slipped on, and that on opening one of these casings I found that it contained excrements from some herbivorous animal. It is of course impossible to tell with certainty what the motive was for putting on this skin casing (see pp. 88 and 89), but I think it probable that it was put on the bow for some magic reason. It is noteworthy that it contained excrement. The fact of this being so is a circumstance that, in my opinion, especially points to the casing being of a magical character, for, according to the Chaco Indians' way of thinking, certain excrements possess magic properties and are often made use of in casting spells.[1]

All kinds of illnesses are by the Choroti considered to be caused by evil spirits. As yet, however, we know but little of these Indians' conception of the character and curing of different illnesses. Once Nordenskiöld called in medical aid from a medicine man among the Choroti, and this is how he describes the way in which the medicine man set about it:

'On many occasions, in the villages, I have seen the medicine men practising their profession. One day, among the Choroti, when I was feeling a bit seedy, I called one of those gentry to my camp. Giving out that I had a severe pain in the lower part of my chest, I asked him if he cared to cure me. He promised to come to me in the evening. At nightfall he arrived, accompanied by a colleague. They insisted on being left alone with me. Mobery and Andersson were consequently turned out, and sentries were posted so as to prevent anyone unauthorized gaining access to the hut. For a start, they made me strip to the skin, and then lie down. They stroked me with their hands over the chest, the sides of my body and the stomach, and then they spat on me. After that, they set to blowing on me, and then they laid themselves down and sucked hard at my chest, in particular at the spot where I had complained of the pain. After having sucked for a while, they turned away and pretended to vomit. Whatever they vomited up in this way, they did not show me, but, as they squeezed it between their fingers, it looked as if they had been squeezing worms. This performance lasted, I think, the

[1] See, for example, Nordenskiöld (13), pp. 93 and 98.

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755 better part of an hour, and when I was allowed to put on my clothes again, my body was full of large, red, marks from the sucking. The two worthies entertained me during the whole doctoring process with a lively conversation which I did not understand. From the pantomimic show I could, however, gather that it was a consultation. For a fee I gave one of the physicians a shirt and the other a pair of tight-fitting drawers.»[1]

As mentioned before, in case of illness the Choroti try to back up the work of the medicine man by dancing; such dancing is then regarded as magically counteracting the influence of the spirit of the illness.[2] The spirit of the illness is by the Choroti called »mohsek ihitek», i. e., the arrow-shooting spirit, which, as I have pointed out in the foregoing, [753] signifies that the Indians believe that the »mohsek» in question has the power of causing illness by arrow-shot. The belief that illnesses could be caused by »fairy-darts» is met with among a number of different peoples, and, as we know, was formerly common also in Sweden.

757 The Choroti also try to cure themselves of illnesses by internally taking medicines consisting of decoctions of herbs, etc. It is, nevertheless, possible that the Indians themselves regard these, which we consider natural, remedies as being magical.

731 361 When an epidemic disease causes many deaths in a Choroti village, it is the practice of the Indians to burn the huts and remove to another site. This they do, either from fear of the spirits of the dead,[3] or in order to dodge the attack of the spirit of the disease.[4]

764 765 On the death of her husband, a Choroti widow cuts off her hair and burns it, and paints her face black with soot. We may take it that these signs of mourning also are of magical import. As an instance of this, the Choroti say that widows cut off their hair so that it shall not be a means of their husbands' spirits molesting them.[5]

769 One evening when after a long day's shooting I arrived at the Choroti village situated near our camp at Tatarenda, I was met by the sound of monotonous singing, muffled drumming, and the noise of magic rattles.

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[1] Nordenskiöld (13), pp. 95 and 96.

[2] Karsten (1), p. 14.

[3] Karsten (2), p. 30.

[4] Cf. Karsten (1), pp. 32 and 33.

[5] »When I asked the Chorotis why a widow cuts and destroys her hair, I received the answer that the dead husband, who wants his wife to follow him to the grave, is believed to attack her through the hair; in order to rid herself of this danger she shaves it off.» Karsten (4), p. 62.

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776 754 825 himself into a jaguar and, appearing in this disguise, kill people. Similarly, an evil wizard is believed to be able to send his soul into a horse, in which shape he will kill the person whom he wishes to bewitch. The horse in fact is the particular shape in which the tutelary spirit of a sorcerer is believed to appear, and is therefore looked upon as a demoniacal animal. Of other animals which are looked upon with superstitious fear the deer must be especially mentioned. This shy and innocent animal is regarded as an evil spirit, a *möhsek*, and its flesh is never eaten by the Choroti. On this point these Indians share a belief which, curiously enough, is met with among many tribes in different parts of South America. In the noiseless movements of this animal and the mysterious rapidity with which it disappears into the forest there is in fact something »ghost-like», which is apt to awaken superstitious awe in primitive minds.

754 825 Just as a sorcerer is supposed to be able to change himself into a jaguar when he wishes to harm other people, so he is also believed occasionally to assume, for the same purpose, the shape of a venomous reptile, for instance that of a rattlesnake. The bite of a venomous snake is generally attributed to the mysterious operation of an evil wizard.

776 823 Of spirits inhabiting what we should call inanimate objects the spirits of the *stones* are of particular interest. In order to understand the ideas which the Choroti entertain in this respect it should be borne in mind that in the interior parts of the Gran Chaco, and particularly in the country inhabited by the Choroti, stones are extremely rare or almost unobtainable. It is in part due to this fact that the Choroti regard stones and pebbles in general with superstitious dread and would never, for instance, put on a necklace in which a stone of some kind entered as a decoration. The reason which they gave me for this aversion was that an evil spirit, a *möhsek*, dwells in the small stone and would infallibly invade the person who hung it on himself. The explanation was, moreover, added, that when a sorcerer bewitches an Indian he avails himself of a pebble-stone which he throws against his victim making him fall ill and die. Similarly, when the medicine-man cures the patient, he extracts [755] the disease-demon in the form of a small stone. In other words, stones are shunned because they form one of the magic arrows which the sorcerers use to kill or harm their enemies.

753 The theory which the Choroti have formed about *sickness* and *disease* has appeared from some of the above statements. Sickness, like epidemic disease, is always due to supernatural operation. It is caused by a demon, a *möhsek*, directed by a human sorcerer. Wizards cause sickness by

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761 body the patient will die, *i.e.* his soul will be compelled to leave its abode. The exertions of the medicine-man again are aimed at expelling the evil intruder.

755 To conjure a disease-demon, that is, to expel it from the body of the patient by incantations and other magical means, is in the Choroti language called *apáhu*. The conjurations nearly always take place in the night or after darkness sets in. This is due to the idea, referred to above, that the night is the special time of the evil spirits. The natives of the Chaco are strengthened in this belief by the fact that catarrhs and other ailments from which they suffer are as a rule worse during the cold nights, whereas in the day-time when the sun is spreading warmth they are less felt. The treatment of the patient takes place outside the hut, generally under a shady algaroba tree, the place where the men assemble for their meetings and drinking-feasts.

The procedure is always about the same. The medicine-man begins his treatment by spitting and blowing vigorously on the particular spot of the body where the evil is seated, and this action is from time to time repeated. This is done to »disinfect» the spot and to prepare it favourably for the extraction of the »arrow». Beneficial purifying effects [827] are commonly ascribed to the saliva, and a medicine-man's saliva is particularly sacred, being imbued with the magic power which fills his whole body. Thereupon the conjuration proper begins. The »doctor» leans over the patient, closes his hand so as to form a tube, puts it on the sick spot and starts to sing, in a low muttering voice, a monotonous chant, ejaculating certain powerful words addressed to the evil demon. The chant mostly consists of refrains; it is evident that the efficacy of the conjuration is mainly ascribed to the voice itself and the breath of the curer, as well as to the very rhythm of the chant. The words or phrases uttered by the Choroti medicine-man are very stereotyped: in fact, they almost invariably seem to consist of the words: *náuhea, náuhea, hiame, hiame . . . náuhea, náuhea, hiame, hiame . . .* incessantly repeated, and only interrupted by the blowing, spitting, and other manipulations. Both words belong to the particular terminology of the medicine-men: *náuhea* means »at night», and *hiame* »go away!» The whole conjuration may thus be translated into: »When night sets in, go away, evil demon!» The phrase has reference to the fact that the evil spirits which cause sickness are believed to move about especially at night, and the doctor is trying, by his conjuration, to prevent the demons from coming back at that critical time to molest the patient. Exactly the same idea appears

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in the conjurations of the Toba medicine-men, as we shall presently find.

These conjurations are varied with other manipulations, above all with blowing, spitting, and rubbing the bad spot. Massage regularly forms part of the treatment applied by the Chaco medicine-men, and is the only action which may really have relieving effects. — Ultimately the doctor again leans over the patient and starts to suck vigorously the bad spot. He turns away, spits and hawks up and behaves as if he were going to vomit. Thereupon he takes something from his mouth and, turning to the bystanders, shows it to them: it is the arrow, consisting of a pebble, a piece of bone, etc. which he pretends to have extracted from the patient's body. The latter should now recover; but it may be that there are several of them in his body, or that a new arrow is sent into it which he will feel on the following night. Generally therefore the treatment must be continued for several evenings.

The Choroti medicine-men also invoke their guardian spirits (*mōhsek eis*), and if they succeed in extracting the arrow, this is said to be ultimately due to the assistance of their good spirits. The invocation of the »good spirit» in connection with the treatment of sickness is however a form of worship that I have studied much better among the Mataco and the Tobas.

The *M a t a c o* have exactly the same theory as to the nature of bodily disorders as the Choroti, ascribing curable »sickness» to possession by an *aittáh slahsa* (a »little» *aittáh* or demon) and mortal epidemic disease to a *nahút*. The ultimate cause of sickness is witchcraft. To extract the »arrow» or splinter (*aláh*) discharged by the demon or his human controller is the ultimate aim of the medicine-man. But he cannot do it with his own powers, he needs the aid of his »good spirit», the *aittáh talák*. If the good spirit does not come down to his assistance, the patient is bound to die. The invocation of the good spirit, or the prayer, is therefore the last and decisive action of the medicine-man's treatment of the sick person.

Whereas the Choroti medicine-man does not generally use any magical instrument when he treats a patient, the particular instrument of the Mataco doctor is a sort of rattle, called *tahús*, consisting of a number of pieces of tin arranged round a circular piece of leather. When the instrument is shaken it produces a dull sound which is believed to inspire the spirits with fear. At certain other conjurations it is worn by the medicine-man like a cincture round the loins.

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arrived at this plantation to look for work. Led by their chiefs, they had made the long journey from the region of their homes. The chiefs, some of whom had met us in the Chaco, whilst others had only heard of us, wished to pay us a call. Personally I do not possess any notes about this reception, but I have come across some in Fries' diary. He thus refers to the incident: »When the Choroti Indians, whom we knew from Tatarenda and who were now working here, saw us, they came, almost to a man, and greeted us, being evidently very glad to meet us again. *The principal chief, at the head of all the lesser caziques*, was among those who came and paid us their respects.»[1]

A favoured position in the village community is that held by the medicine men; for their services they are rewarded by a — from a Choroti point of view — generous remuneration in the form of food and drink. That among the Choroti the medicine men are held in great esteem, and that everybody is anxious to be on good terms with them, appears only natural to anyone with a knowledge of what an important part magical conceptions play with these Indians. It is largely by the Finlander explorer, Rafael Karsten — oft-quoted in the present work — that ethnological science has been enriched by information and detailed reports on the magical customs and practices of the Choroti, as well as of other Chaco tribes.[2]

The Choroti Indians believe that man, all his life through, is more or less subject to influences from spirits, who, on the whole, are of a harmful nature. Especial danger is to be apprehended from spirits on certain occasions such as child-birth, pubescence and death. Usually the evil is worked by a spirit, »mohsek», entering a person through one of the orifices of his body and thereby assuming possession of him. If at birth a child is deformed or very sickly, it is supposed to be possessed by some evil »moshek», and is on that account killed.[3] When a girl has attained the age of puberty, during the first critical, time she must keep a covering over her head, so that no evil spirit may be able to enter her body by way of her nose, mouth, eyes or ears.[4] The occasion of a girl attaining puberty is celebrated with a dance which undoubtedly is of a magical character.

[1] Professor Robert Fries: diary, X, p. 14. Italics by von Rosen.
[2] See Bibliography attached.
[3] Karsten (4), p. 176.
[4] Karsten (4), p. 165.

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412 this material it at once became apparent to me that seven of these awls were similar to those that Professor Lönnberg had identified as being from ulnæ of some large species of feline animal. I obtained permission to borrow these seven awls[1] with a view of ascertaining, if possible, through Professor Lönnberg, from what animals they were derived. After Professor Lönnberg had examined these objects too, I got from him the following report: »From all I can see, the implements herewith returned to you are also manufactured out of ulnæ of puma.»[2]

757 412 In the men's satchels, or bags, that I have acquired from the Choroti, I have as a rule found *several* bone awls, together with, now and again, a wooden awl. This observation of mine is not to be explained away by my having happened to examine Indian carrying-bags which by mere chance contained a number of bone awls, because Nordenskiöld, who lived among Chaco Indians for a much longer period than I did, noticed exactly the same thing. He writes: — »In *every* Choroti or Ashluslay Indian's carrying bag one finds *quite a number* of bone awls, with which he pricks himself when feeling fatigued.»[3] If it were only a question of puncturing the skin so as to make the blood flow, it would of course be sufficient to possess only one bone awl. As we know, blood-letting is resorted to by the Indians of the Chaco for the attainment of various ends. As has been said; when wishing to locate nests of wild bees, they always use a wooden awl. Can it possibly be that the material, of which this particular kind of awl has been made, is taken from some kind of tree especially favoured by the bees in their nest-building? When the Indians, in bow-shooting, draw the arrow towards the ear (see p. 63), and then find that the arm trembles, they jab a bone awl into the arm. It may be wondered if, on those occasions, they make use of the above-mentioned awls made from ulnæ of powerful feline animals, or raptorial birds? When feeling tired after a long march, for instance, the Indians give themselves a prick in the leg. Is it then that bone awls made out of canon bones of young deer are put into use?

It would be very interesting to learn from what animals the material of other bone awls from the Chaco peoples, kept at Swedish and foreign museums, have been taken. It is only by extensive examination in this

[1] The awls are marked B. 392, B. 395, C. 248 (346?), D. 1214, D. 1220, D. 1221 and D. 1222.
[2] Letter dated Sept. 14. Rockelstad collection of Manuscripts, Volume 1921, Letter L.
[3] Nordenskiöld (13), p. 49. Italics by von Rosen.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

way, *and by renewed research among the Indians*, that we shall be enabled to obtain a thorough knowledge of their conception of magic blood-letting by means of awls.

In the foregoing I have mentioned that Choroti bow-staves are sometimes provided with a small skin casing, slipped on, and that on opening one of these casings I found that it contained excrements from some herbivorous animal. It is of course impossible to tell with certainty what the motive was for putting on this skin casing (see pp. 88 and 89), but I think it probable that it was put on the bow for some magic reason. It is noteworthy that it contained excrement. The fact of this being so is a circumstance that, in my opinion, especially points to the casing being of a magical character, for, according to the Chaco Indians' way of thinking, certain excrements possess magic properties and are often made use of in casting spells.[1]

All kinds of illnesses are by the Choroti considered to be caused by evil spirits. As yet, however, we know but little of these Indians' conception of the character and curing of different illnesses. Once Nordenskiöld called in medical aid from a medicine man among the Choroti, and this is how he describes the way in which the medicine man set about it:

'On many occasions, in the villages, I have seen the medicine men practising their profession. One day, among the Choroti, when I was feeling a bit seedy, I called one of those gentry to my camp. Giving out that I had a severe pain in the lower part of my chest, I asked him if he cared to cure me. He promised to come to me in the evening. At nightfall he arrived, accompanied by a colleague. They insisted on being left alone with me. Moberg and Andersson were consequently turned out, and sentries were posted so as to prevent anyone unauthorized gaining access to the hut. For a start, they made me strip to the skin, and then lie down. They stroked me with their hands over the chest, the sides of my body and the stomach, and then they spat on me. After that, they set to blowing on me, and then they laid themselves down and sucked hard at my chest, in particular at the spot where I had complained of the pain. After having sucked for a while, they turned away and pretended to vomit. Whatever they vomited up in this way, they did not show me, but, as they squeezed it between their fingers, it looked as if they had been squeezing worms. This performance lasted, I think, the

[1] See, for example, Nordenskiöld (13), pp. 93 and 98.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

better part of an hour, and when I was allowed to put on my clothes again, my body was full of large, red, marks from the sucking. The two worthies entertained me during the whole doctoring process with a lively conversation which I did not understand. From the pantomimic show I could, however, gather that it was a consultation. For a fee I gave one of the physicians a shirt and the other a pair of tight-fitting drawers.»[1]

As mentioned before, in case of illness the Choroti try to back up the work of the medicine man by dancing; such dancing is then regarded as magically counteracting the influence of the spirit of the illness.[2] The spirit of the illness is by the Choroti called »mohsek ihitek», i. e., the arrow-shooting spirit, which, as I have pointed out in the foregoing, signifies that the Indians believe that the »mohsek» in question has the power of causing illness by arrow-shot. The belief that illnesses could be caused by »fairy-darts» is met with among a number of different peoples, and, as we know, was formerly common also in Sweden.

The Choroti also try to cure themselves of illnesses by internally taking medicines consisting of decoctions of herbs, etc. It is, nevertheless, possible that the Indians themselves regard these, which we consider natural, remedies as being magical.

When an epidemic disease causes many deaths in a Choroti village, it is the practice of the Indians to burn the huts and remove to another site. This they do, either from fear of the spirits of the dead,[3] or in order to dodge the attack of the spirit of the disease.[4]

On the death of her husband, a Choroti widow cuts off her hair and burns it, and paints her face black with soot. We may take it that these signs of mourning also are of magical import. As an instance of this, the Choroti say that widows cut off their hair so that it shall not be a means of their husbands' spirits molesting them.[5]

One evening when after a long day's shooting I arrived at the Choroti village situated near our camp at Tatarenda, I was met by the sound of monotonous singing, muffled drumming, and the noise of magic rattles.

[1] Nordenskiöld (13), pp. 95 and 96.
[2] Karsten (1), p. 14.
[3] Karsten (2), p. 30.
[4] Cf. Karsten (1), pp. 32 and 33.
[5] »When I asked the Choroti why a widow cuts and destroys her hair, I received the answer that the dead husband, who wants his wife to follow him to the grave, is believed to attack her through the hair; in order to rid herself of this danger she shaves it off.» Karsten (1), p. 62.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XI.

Tools.

A
C
412

In the interior of the Chaco there are, as we have already pointed out, no stones at all. Consequently the Ashluslay and the Choroti have no stone tools, their primitive tools being made exclusively of bone, teeth, shells, and hard wood.

As knives they use the sharp-toothed *jaw of the palometa* (round pompano). These knives are used by the Indians of S. America wherever these fish occur, and where the Indians still use primitive tools. Thus, KARL V. D. STEINEN mentions them for the Indians of the upper R. Xingú.

Bone awls are in general use among the Ashluslay and the Choroti, though rather as bleeding instruments than as tools. The bone awl belongs to the objects whose distribution is very difficult to study, as it soon goes out of use when the Indians have obtained iron from the whites. I have seen it, apart from among the above tribes, among the Yuracáre, Chiriguano, Tapiete, Mataco and Toba. A special kind of bone awl is used by the Choroti and the Ashluslay for removing sand fleas (chigoes). I have not seen them elsewhere.

[767]

Pieces of shell are used by the Choroti and the Ashluslay as scrapers. It is, of course, impossible to draw up a map of the distribution of such tools.

Very characteristic of the Indians of the stoneless Chaco, the Choroti, Ashluslay, Tapiete, Lengua[1]) and Mataco,

[1]) GRUBB, p. 75.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

found them in four female graves and in a child's grave. Three of AMBROSETTI's »saws» are adorned with carved human heads. I found a similar object of stone (Fig. 16) which may have been used in this way, at Caipipendi in the Chiriguano territory. A C 4/2

Wooden awls, which I only know from the Chaco, are used by the Choroti and Ashluslay for letting blood. A C [957]

Fig. 16. Toothed stone scraper. Caipipendi, Bolivia. R. M. (K. 194) 1/4

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

M 753

by another name: sometimes it is called *nihléle*, in other cases again *pini*, words which have their equivalents in the Mataco and the Toba languages in the terms *aláh* and *kaipák* respectively. In regard to all these words we have to remember that they belong to the particular mystical terminology of the sorcerers and cannot exactly be translated into any civilized language. The Indian »arrow» or »splinter» is half an inanimate object, half a live being, half material, half spiritual, half natural, half supernatural. Whatever it is, it is to the primitive mind the most real thing possible, because its existence is manifested by its dreadful effects.

C 754

The Choroti Indian, who works evil against his fellow-tribesmen by throwing spells against them, is called a wizard (*ayïeu*). The expression for the nefarious operation itself is in the Choroti language *páhu ahuli sikiätsä*, (»to work evil against a fellow-man by means of witchcraft»). For the purpose of bewitching another Indian the sorcerer tries if possible to get hold of something that has been in close contact with the victim's body, for instance a single hair, a little saliva when he has spat on the ground, something of his excrement, a piece of his clothes, etc., and uses these things as vehicles for his curses. But even a medicine-man or curer, as we have seen, is called *ayïeu*, and there is thus no essential difference between an Indian practising black or nefarious magic and one practising white magic. A man in possession of a guardian spirit may use his art either for the benefit of his fellow-tribesmen or to harm them, according as to whether he regards them as his friends or as his foes.

C [164] 753

Besides rheumatism, affections of the throat and the chest, arising from chill, are very common among the Chaco Indians during the dry season. The Indian explanation invariably is that an evil spirit has entered into that particular part of the body where the pain is felt. If a Choroti Indian suffers from head-ache and I ask him what is the matter with him, he will answer that he has a *möhsek* in the head; if he suffers from a catarrh, he will point to his throat or his chest and say that a *möhsek* has taken its seat in either of these parts of the body. In a village I once met an old woman who had her right fore-arm paralyzed, evidently in consequence of a fit of apoplexy. She explained to me that the arm had been seized by an evil *möhsek*, and had tied a dirty woollen band round the arm at the wrist so as to prevent the evil spirit from penetrating further into the body.

C 761

If the demon is allowed to complete his work of destruction in the

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

761 body the patient will die, *i.e.* his soul will be compelled to leave its abode. The exertions of the medicine-man again are aimed at expelling the evil intruder.

755 To conjure a disease-demon, that is, to expel it from the body of the patient by incantations and other magical means, is in the Choroti language called *apáhu*. The conjurations nearly always take place in the night or after darkness sets in. This is due to the idea, referred to above, that the night is the special time of the evil spirits. The natives of the Chaco are strengthened in this belief by the fact that catarrhs and other ailments from which they suffer are as a rule worse during the cold nights, whereas in the day-time when the sun is spreading warmth they are less felt. The treatment of the patient takes place outside the hut, generally under a shady algaroba tree, the place where the men assemble for their meetings and drinking-feasts.

The procedure is always about the same. The medicine-man begins his treatment by spitting and blowing vigorously on the particular spot of the body where the evil is seated, and this action is from time to time repeated. This is done to »disinfect» the spot and to prepare it favourably for the extraction of the »arrow». Beneficial purifying effects [827] are commonly ascribed to the saliva, and a medicine-man's saliva is particularly sacred, being imbued with the magic power which fills his whole body. Thereupon the conjuration proper begins. The »doctor» leans over the patient, closes his hand so as to form a tube, puts it on the sick spot and starts to sing, in a low muttering voice, a monotonous chant, ejaculating certain powerful words addressed to the evil demon. The chant mostly consists of refrains; it is evident that the efficacy of the conjuration is mainly ascribed to the voice itself and the breath of the curer, as well as to the very rhythm of the chant. The words or phrases uttered by the Choroti medicine-man are very stereotyped: in fact, they almost invariably seem to consist of the words: *náuhea, náuhea, hiame, hiame . . . náuhea, náuhea, hiame, hiame . . .* incessantly repeated, and only interrupted by the blowing, spitting, and other manipulations. Both words belong to the particular terminology of the medicine-men: *náuhea* means »at night», and *hiame* »go away!» The whole conjuration may thus be translated into: »When night sets in, go away, evil demon!» The phrase has reference to the fact that the evil spirits which cause sickness are believed to move about especially at night, and the doctor is trying, by his conjuration, to prevent the demons from coming back at that critical time to molest the patient. Exactly the same idea appears

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

776 [764] character.[1] When there has been a death in a village, certain precautionary measures have to be taken in order that the spirit who caused the death may not in some way or other work further evil.

But also on all other possible occasions the spirits are capable of working harm, indeed, Karsten is of opinion that the Indians, even when doing such commonplace acts as eating and drinking, fear that malicious spirits may surreptiously effect an entrance into them along with the food or drink.[2] That the Indians have this belief is not so very remarkable. Similar conceptions are to be found among many peoples in different continents, and have also been widely spread in Europe. To mention one instance; in olden times on yawning or sneezing there was the custom of making the sign of the cross before the mouth, a custom founded on the fear that the devil or some of his kindred should slip in through the open mouth.

751 As a means of protecting themselves against evil spirits, or for securing, in a magical way, other advantages, the Choroti make use of a variety of devices, the most important of which are the covering of the body, painting of the face, dyeing textiles and other objects red, tattooing, wearing of amulets and certain ornaments, singing, blowing of whistles and shaking rattles, beating of drums, dancing, games of hazard, cutting or pulling out of hairs, and blood-letting.

The custom, previously mentioned, of the girls at their first menstruation keeping their heads covered with a cloth, is an instance of the first-mentioned magical means of protection.

302 751 At dances and lovers' meetings the Indians paint their faces (see page 78), but they adorn themselves by face-painting also on other occasions. As an instance, men as well as women usually had their faces painted when visiting us in our camp. At the time we took this to be a manifestation of Indian vanity, but after having read Karsten's detailed account of the reasons for painting the face among the Indians, I am more inclined to the belief that this painting had been applied as a protection against such unknown spirit forces as might possibly threaten them in the camp of the whites.

831 302 751 That painting of the face is done at dances and meetings of a sexual character, is a circumstance connected with the Indian belief that occasions

[1] Karsten (1), p. 26, and (4), p. 17.
[2] Karsten (3), p. 205.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

826 that the hair in certain magic rites could represent the person from whom it had been taken.[1] We find a similar belief existent among the Choroti who, because of it, carefully burn the hairs that they cut off or pluck out. They also believe that the souls of the dead, as well as evil spirits, are [764] capable of working harm on the living by means of the hair, and on this belief is based the custom of the Choroti women of cutting off this adornment on the death of their husbands.[2] Similarly, the practice universally prevalent among the Choroti of plucking out eyebrows, eyelashes and other hairs of the face, the hairs of the armpits and about the genital parts, is probably due to this belief.[3] When a Choroti Indian takes a scalp, or fixes the scalp lock of a slain foe under his frontlet (see pp. 60, 61 and 103), it is probable that he considers that he has not only succeeded in obtaining a material trophy, but that the possession of the scalp or scalp lock to some certain extent confers upon him power over the spirit of his fallen adversary.[4]

[727]

[412]

Fig. 185. Bone awl for blood-letting. Probably made out of an ulna of a puma. The awl is wrapped round with a red, woollen-fillet to prevent it from penetrating too deeply into the muscles. Choroti. Gran Chaco. Bolivia. 2/3. Riksm 03. 3. 82.

Fig. 186. Bone awl for blood-letting; also used for tattooing. Probably made from an ulna of a raptorial bird. The awl is wrapped round with grey and red woollen yarn (the latter nethermost) so as not to enter too deeply into the flesh. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 03. 3. 83.

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In the foregoing (pp. 63 and 75) I have mentioned that the Choroti on certain occasions perform a kind of magic blood-letting by means of bone awls. I have also given an account of the Indian conception of the effects of this kind of blood-letting (see pp. 63 and 64). I will now add that I think it probable that the *material* of which the awl consists also plays a certain part.

Nordenskiöld has observed that the Ashluslay, when they are out looking for nests of wild bees, prick themselves above the eyes with a

[1] Even as early as in the Wærend law, mention is made of hair being used in witchcraft.
[2] See page 182.
[3] Karsten (4), p. 10.
[4] Cf. Karsten (4), p. 60.

better part of an hour, and when I was allowed to put on my clothes again, my body was full of large, red, marks from the sucking. The two worthies entertained me during the whole doctoring process with a lively conversation which I did not understand. From the pantomimic show I could, however, gather that it was a consultation. For a fee I gave one of the physicians a shirt and the other a pair of tight-fitting drawers.»[1]

As mentioned before, in case of illness the Choroti try to back up the work of the medicine man by dancing; such dancing is then regarded as magically counteracting the influence of the spirit of the illness.[2] The spirit of the illness is by the Choroti called »mohsek-ihitek», i. e., the arrow-shooting spirit, which, as I have pointed out in the foregoing, signifies that the Indians believe that the »mohsek» in question has the power of causing illness by arrow-shot. The belief that illnesses could be caused by »fairy-darts» is met with among a number of different peoples, and, as we know, was formerly common also in Sweden.

The Choroti also try to cure themselves of illnesses by internally taking medicines consisting of decoctions of herbs, etc. It is, nevertheless, possible that the Indians themselves regard these, which we consider natural, remedies as being magical.

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On the death of her husband, a Choroti widow cuts off her hair and burns it, and paints her face black with soot. We may take it that these signs of mourning also are of magical import. As an instance of this, the Choroti say that widows cut off their hair so that it shall not be a means of their husbands' spirits molesting them.[5]

One evening when after a long day's shooting I arrived at the Choroti village situated near our camp at Tatarenda, I was met by the sound of monotonous singing, muffled drumming, and the noise of magic rattles.

[1] Nordenskiöld (13), pp. 95 and 96.
[2] Karsten (1), p. 14.
[3] Karsten (2), p. 30.
[4] Cf. Karsten (1), pp. 32 and 33.
[5] »When I asked the Chorotis why a widow cuts and destroys her hair, I received the answer that the dead husband, who wants his wife to follow him to the grave, is believed to attack her through the hair; in order to rid herself of this danger she shaves it off.» Karsten (4), p. 62.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Of all this there was a cessation as soon as I had approached the village near enough for the dogs to give warning, by barking, that a stranger was coming. In answer to my question why there had been singing, drumming and shaking rattles, I was told that there had been a dance for somebody who had died in the village. From what the Indians represented to me I gathered that the dancing, the singing, and the »music» had been performed in order to protect the soul of the dead person from being attacked by evil spirits, but it is possible that, instead of this, the dancers were aiming at protecting the villagers from being harmed by the spirit of the deceased, or from the evil spirit who had killed the newly dead person. The latter explanation is more in correspondence with other observations of the customs of the Choroti Indians.

In the literature one finds a statement that the Choroti bury their dead in a lying-down position.[1] This mode of burying does occur among the Choroti, but these Indians also inter their departed ones in a hunched up, squatting position.[2] As an instance, the Choroti who were living near Tatarenda declared that they usually buried their dead in the last-mentioned position. This mode of burial may possibly be connected with cultural influence from the neighbouring Chiriguano, but in such a case that influence must have been active also among the Choroti living right away on the Pilcomayo, for all the Choroti skeletons (three) that Nordenskiöld excavated in the neighbourhood of Fort Crevaux had been buried in a sitting posture. Of the three Choroti skeletons unearthed by him at Caiza in the Tatarenda district, one was found »in a doubled-up posture, with one hand on the top of the head and the other placed on the chest».[3]

During our journey Nordenskiöld only excavated these six Choroti skeletons. He has kindly permitted me to publish his notes on the circumstances under which the skeletons were found. The data above referred to I have taken from the catalogue supplied by Nordenskiöld to the Ethnographical Section of the Riksmuseum, in which his original notes upon modes of burial are embodied (see preceding foot-note).

Even in my earliest published account of the Choroti Indians I made

[1] Karsten (3), p. 204.

[2] von Rosen (3), p. 18.

[3] This according to Nordenskiöld's original notes in the Riksmuseum inventory, 03. 5. Whether the skeletons excavated at Caiza were found in a sitting or lying-down position is not expressly stated in the notes. But as regards the Choroti skeletons excavated at Crevaux, Nordenskiöld especially points out that they had been buried in a »sitting posture».

764 a point of relating how they sometimes put down bowls with water and food in the graves with their dead.[1] From the table which here follows it will also be seen that in Choroti graves may be found not only food and water bowls (clay pots and calabashes) but also that the departed one may even be supplied with a tobacco pipe. According to my opinion, the presence of food and drink in graves points to the Choroti believing in an existence following upon the death of the body, and that the soul is in need of food and drink.

According to Karsten, the Choroti occasionally also place earthenware pots filled with water on the graves. About this he writes as follows: »The Choroti of the Chaco, who bury their dead in a lying position, customarily place at each end of the grave a clay pot half-filled with water. These water-filled clay pots are not meant as an offering to the spirit of the deceased, for that kind of offering is unknown to the Choroti. It is more probable that the pots are put on the grave on account of some other superstitious belief, and that to them is ascribed some supernatural power that is able to keep the demon of death at a distance.«[2]

It is possible that the purport of the *above described* custom is the one that Karsten considers it to be; on the other hand, to my thinking it is almost certain that the articles *placed in the grave* (it may be food and drink) are intended for the use of the dead.

If this is not the case, then it follows that e. g., the grave furniture shown in the synoptic table on page 185 must be regarded as amulets for warding off evil spirits from the dead. In the case of the snail shell (Borus oblongus), the theory that it was included in the grave equipment for that purpose is admittedly not improbable, but that the calabash bowl, the clay pot, leather bag and tobacco pipe were placed in the grave as amulets, is a thing I consider as being hardly probable. The circumstance of the Choroti interpreter telling me that the bowls of food and drink that the Choroti place in the grave with their dead are meant for provisioning the spirit on its journey, I do not, per se, accredit with any

[1] von Rosen (3), p. 52.

[2] Translated: Karsten (3), p. 304. — »Die Choroti im Chaco, die Toten in liegender Stellung begraben, haben die Gewohnheit, an jedes Ende des Grabes einen halb mit Wasser gefüllten Tontopf zu stellen. Diese mit Wasser gefüllten Tontöpfe sind nicht als Opfergaben für den Toten gemeint, denn solche Opfergaben sind den Choroti vollständig unbekannt. Es ist wahrscheinlicher, dass sie aus irgend welchen anderen abergläubischen Gründen auf das Grab gestellt werden und dass eine übernatürliche Kraft ihnen zugeschrieben wird, von der man annimmt, dass sie den Totenkämon fernhält.«

Synopsis of circumstances relating to finds of Choroti skeletons.

Compiled by the Author from Erland Nordenskiöld's notes, Riksm. Inventory, 03. 5.

Catalogue No. Riksm. 03. 5.	Locality of find	Sex of the buried	Posture of skeleton	Character of grave	Grave furniture	Remarks
10	Crevaux Gran Chaco Bolivia	Woman	Sitting	A round pit	None	The skeletons numbered 10, 11 and 12 are of members of the same family. They had been buried together
11	»	Man	»	»	»	See above
12	»	Boy or girl	»	»	»	»
13	Casa Gran Chaco Bolivia	Man	Crouching, one hand on the top of the head, the other on the chest. Not stated whether sitting or lying down	A rounded, oblong pit	A calabash	—
14	»	»	Doubled-up. Whether sitting or lying, is not stated	—	A clay pot, and a leather bag containing a tobacco pipe and some seeds which Nordenskiöld thought possibly tobacco seeds	—
15	»	Woman	»	A round pit	The shell of a land snail (Borus oblongus), see fig. 43	—

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

764 decisive weight, for, as I have pointed out in the foregoing, one needs to use the utmost caution in accepting information which has been obtained through an interpreter. But as an eminently striking corroboration of the 764 interpreter's statement there is, I may point out however, the fact that 171 the Mataco Indians, who belong to the same ethnical group as the Choroti, often put down pots of food and drink in graves, and that the Mataco believe that the dead actually partake of the offering. The fact of this being so was easy enough of verification among the Mataco Indians who, already at the time of our journey, had to a certain extent acquired the Spanish tongue. At Rio Seco Nordenskiöld excavated a Mataco grave, and in this he found a clay pot. About this he writes as follows: »When I asked them what the pot was for, they told that it had contained water which the occupant of the grave had drunk on his journey; a reply showing that they have a firm belief in a life beyond the grave.»[1] Bearing in mind how closely the customs and usages of the Mataco upon the whole correspond with those of the Choroti, I am of opinion that, from consistent statements of the Choroti interpreter and Mataco Indians, we have very strong reasons for supposing the food- and drink vessels, the tobacco pipes, etc., that have been found in Choroti graves, were intended for the use of the dead.

[1] Nordenskiöld's notes, Riksmuseum inventory, 03. 5.

[pp. 187-268 not processed]

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba 6/12
Choroti SK 6

the death-spirit from rising from the grave. The Tobas believe that if shortly after the burial the body is exhumed, the spirit will come out and may transform himself into a tiger which will kill the people. But the latter may sometimes happen even without any particular profanation of the burial-place.

The customs here described with particular reference to the Tobas are typical of the burial customs of the Pilcomayo tribes in general. Thus the Choroti and the Mataco as a rule bury the corpse in a seated or reclining posture as do the Tobas. There are however exceptions to this rule, and at least in one case which came under my notice the dead Choroti man had been buried in a lying posture. At each end of the grave had been placed a clay pot, partly filled with water. The idea underlying this arrangement was not quite clear. Since among the Indians supernatural power is frequently ascribed to clay pots, it is probable that they had been placed on the tomb for some superstitious reasons, perhaps with a view to keeping off the death-demon. I may add that among the Chaco Indians offerings of food and drink, or other kinds of offering, are not generally made to the spirits of the departed. Certain traces of food and drink offerings have been found among the Mataco, but on the whole we may say that the cult of the dead, which plays such an important part in the religion of most South American Indians, is unknown to the natives of the Gran Chaco. When I asked the Choroti whether they would not offer food and drink to the spirit of an Indian who had recently been buried, they laughed and answered: »He is dead, he wants no food». Still of course neither the Choroti nor other Chaco Indians have wholly divested their minds of the primitive idea that in the after-life the soul has to a certain extent the same wants and appetites as in this earthly life.

As a rule the place where a person has been buried is not, among the Choroti and the Mataco, marked by any tomb or heap of earth thrown up over the grave. Some tribes, however, at any rate the Choroti, are in the habit of constructing, over the place, a primitive kind of hut, consisting of a roof of twigs and grass resting upon four poles. The hut is said to be »the habitation of the *móhsek*». Chiefs and old family fathers are particularly honoured in this way after death.

The customs practised immediately after a death are in their main features the same in all Chaco tribes. The Choroti, as soon as the sick Indian has drawn his last breath, start to make a tremendous noise with all sorts of rattles and by shouting and wailing. The medicine-men

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

M C 764 M [535]

chant the whole night, beating drums and shaking rattles, while the women from time to time utter their peculiar dirge. Similarly among the Tobas drums and rattles are at work for several nights after the death takes place. Among the Mataco dancing forms part of the death-feast, the ceremonial dance *Katináh* being performed every night for a long time. The men taking part in this ceremony have their face blackened with charcoal as a »sign of sorrow», but in reality as a protection against the death-demon. As a rule the Indians would not admit that they feared the departed soul. On the contrary, the Mataco told me that when the medicine-man beats his drum in the evening, he at the same time says to the departed soul in an insinuating voice: »May you stay here, may you not leave us!» The Choroti again, in speaking of the deceased use the stereotyped phrase: *náhsah* (= *eis sáhe*), *i. e.* »he is good», although at the same time their whole behaviour clearly shows that they stand in fear of him.

M 764 273

The drinking of some intoxicating liquor also forms an important part of a death-feast, and it is considered necessary that the men taking part in the drinking-bout should get more or less intoxicated. The strong algaroba beer is most appreciated, but at those times of the year when there is no algaroba the Indians have to be content with beer brewed of tusca or chañar. Only in exceptional cases do the Chaco Indians drink maize beer at their feasts. The drinking of intoxicating liquors on these occasions has a ceremonial character and is believed to fill those taking part in it with power of resistance against the disease and death-demon.

M C 783 768

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[1] Nordenskiöld (13), pp. 95 and 96.
[2] Karsten (1), p. 14.
[3] Karsten (2), p. 30.
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2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI12
Choroti SK6

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Weeping and wailing plays an important part among the mourning ceremonies of the Indians, although it is always limited to the women and the children. The fact that wailing is ceremonial clearly appears from the circumstances under which it takes place. Although it is beyond doubt that the Indians are capable of real feelings of sorrow at the death of a near relation, yet their intense fear of death — including the fear of the dead body — is apparent throughout their mourning customs. The object of the wailing seems to be partly to propitiate the spirit of the departed relative by showing him how deeply the survivors grieve at his death, partly to frighten away the death-demon by the noise. The latter point of view is probably the most important. Wailing is continued for several months after the death. The length of the wailing period varies according to the social importance of the deceased. A great chief is mourned in all tribes for longer than an ordinary member of the community, in some cases up to a whole year. As to the manner of wailing there is a marked distinction between the Tobas and the Mataco on the one hand, and the Choroti on the other. The wailing of the Toba women is like a greatly exaggerated loud crying and sobbing which is seemingly the expression of a desperate sorrow. The wailing of the Choroti women is calmer and more like the weeping of a child. Every lamentation consists of a series of sounds produced in a high falsetto voice and

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
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C 765 forming a falling scale in a minor key, which makes a very peculiar impression. At the time of mourning the women and children commence this wailing at fairly regular intervals and all at once, as if it were agreed upon. To one who lives for some time in a Choroti village it is evident C 765 that wailing forms part of Indian etiquette. Not only must the mourners, when they arrive from another village, which has been abandoned on 576 account of a death, be received by a choir of weeping women and children: any guest who arrives in a village shortly after a death has taken place there is received in the same way. When in March 1912 I visited the Choroti in the interior of their land, where no European had yet penetrated, I noticed with astonishment that on my arrival at a village I was received with loud wailing by the women and children. I soon learnt that a great chief had died some time ago; but the fact that the wailing was renewed to receive me remained unexplained. I was told, however, that this peculiar way of receiving strangers was prescribed by Choroti custom. The most probable explanation seems to me that it is feared lest the spirit of the defunct should revisit his people in a strange disguise, and that the wailing has for its object to propitiate him or to frighten him away. Such ideas prevail among other South American tribes also, both in the Chaco and elsewhere.

M C T 765 302 562 There are certain other customs observed in connection with mourning, but they are as a rule limited to the women. Among all Pilcomayo tribes it is customary that when a man dies, his widow, daughters, and sisters cut their hair short with the sharp teeth of the *palometa* fish and burn it. Ceremonial wailing always attends the cutting of the hair. When I asked the Choroti why a widow cuts and destroys her hair after the death of her husband, I was told that the dead husband, who wants his wife to follow him to the grave, is believed to attack her through the hair. In order to rid herself of this danger she shaves it off. Exactly T 765 the same belief prevails among the Tobas: the dead husband or father will seize his surviving wife or daughter by the hair and cause her to fall ill and die. Among the Tobas a widow cuts her hair twice, first immediately after the husband's death, the second time some months later T [602] when the hair has again grown long. At the same time she repeats the wailing. Similarly the nearest female relatives have to diet, in so far as they are not allowed to eat fish for many months. If they infringe the rules of diet in regard to fish they may sicken and die. After a Toba woman has cut her hair the second time she may again eat fish, her mourning is over and she is allowed to marry again. Even some of the

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
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in their magical dances and conjurations the Indians as a matter of fact most often deal with these particular evil spirits.

These are features common to the religious beliefs of all Indians of the Chaco; indeed they are found among all South American Indians. But even in the Chaco this general belief in spirits appears in somewhat different forms among different tribes. The *Choroti* fancy that the spirits, *möhsek*, in their external appearance have the shape of old, withered men (*kihilahs*). They are, in the imagination of the Indians, provided with wings, which enable them to move rapidly through the air. Owing to their bird-like appearance the spirits are also called *ahuena* (»the birds«). They are countless in number, mostly invisible, and as a general rule evilly disposed towards mankind. I never met an Indian who professed to have *seen* a *möhsek*, but nearly all say that they have *heard* their voices at night. One peculiarity of the demons of the Chaco Indians is that they only exist at night. As soon as darkness sets in the Choroti Indian fears mysterious dangers from the *möhsek*, who are then believed to draw near the villages in great numbers and even to enter into the huts, visiting the inhabitants with sickness and death. This is the reason why a traveller living with the Choroti can hear from some house nearly every night the low chant of some old man accompanied by the dull sound of the rattle gourd, *pelite*, with which he tries to conjure and keep off the supernatural pests. At daybreak however the spirits are supposed to leave, for the forests and the plains — with a piping or whistling sound, the Indians explained to me, which they are very clever in imitating. For this purpose the Choroti use a special kind of round whistle which they generally wear hanging round the neck as an ornament. At their religious dances they produce, from time to time, shrill whistling sounds with these whistles, professedly with a view to conjuring the *möhsek*. The Indians believe that they can keep supernatural beings at bay by imitating them in their external appearance or their sounds.

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In the Chaco many weird sounds are heard at night which are apt to fill the natives with superstitious fear. The Choroti frequently told me about the »nightly whistling of the spirits« (*yap möhsek ahuäh*). The peculiar piping or whistling which is most often identified with the sound of the spirits is, I believe, produced by certain insects living on the stems or branches of the trees. The spirit of the tusca tree was specially mentioned to me, but this spirit is said to be a »good« being.

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The idea of the Choroti, that the spirits have the shape of old men, has given rise to a peculiar and cruel custom. They do not allow their

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2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

old men to die a natural death, but when they grow very weakly and sickly they kill them with an arrow-shot in the heart, whereupon they burn them with all their property instead of burying them, which among the Choroti is the general mode of disposing of the remains of the dead. The reason which they gave me for this custom was that if an old man is allowed to die a natural death he will be changed into an evil demon (*möhsek*), who will rage in the village and kill all the people. This, according to their idea, can be prevented by giving the old men a premature, violent death.[1]) In order to understand this custom we must, moreover, take into consideration that to the mind of these Indians *all* aged men are more or less versed in the magic art, *i. e.* are sorcerers, and the spirits of sorcerers are specially feared.

The fact that old men and sorcerers are believed to be transformed after death into evil *möhsek* seems to suggest that these spirits or demons are nothing but disembodied human souls, who have in the after-life been changed into supernatural and mostly evilly disposed beings. As a matter of fact, the death-spirit residing in the grave where a dead body has been buried is called *möhsek* by the Choroti. Like most other primitive peoples the Choroti fear the burial-places because they fear coming in contact with the spirits haunting these places. It seems therefore evident that at any rate the souls of certain persons are changed into *möhsek* after death. The word *möhsek* may therefore be best translated into 'ghost'. The Indians only use it of the disembodied souls or spirits of dead men, but not of the shadow-like »double» of a living person, for which they have no particular word. Even when speaking of a recently departed person they generally simply use the expression *yäl*, *i.e.* »the dead one». *Möhsek* particularly seems to have reference to the spirits of men who died long ago, and these spirits as a rule are more evilly disposed and more feared than the spirits of Indians recently departed.

The Choroti, like other Chaco Indians, do not deify inanimate objects of nature to the same extent as many other South American tribes. Yet

[1]) Nordenskiöld's categoric statement as to the practice of infanticide and parricide among the Choroti therefore is not correct. (»Der Mord beschränkt sich auf den Kinder- und Elternmord»; and: »Wenn ein Indianer seine alte blinde Mutter oder seinen verkrüppelten Vater tötet, so befreit er sie selbst von einem Leben das ihnen eine Last ist und sich selbst von einer Extramühe im Kampfe ums Dasein.» (*Indianerleben*, p. 38). As I have stated above, the killing of parents is limited to old men, and this custom must wholly be explained from the superstition of the Indians. Infanticide again is limited to the cases mentioned by me in a previous chapter.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

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chant the whole night, beating drums and shaking rattles, while the women from time to time utter their peculiar dirge. Similarly among the Tobas drums and rattles are at work for several nights after the death takes place. Among the Mataco dancing forms part of the death-feast, the ceremonial dance *Katináh* being performed every night for a long time. The men taking part in this ceremony have their face blackened with charcoal as a »sign of sorrow», but in reality as a protection against the death-demon. As a rule the Indians would not admit that they feared the departed soul. On the contrary, the Mataco told me that when the medicine-man beats his drum in the evening, he at the same time says to the departed soul in an insinuating voice: »May you stay here, may you not leave us!» The Choroti again, in speaking of the deceased use the stereotyped phrase: *uáhsah* (= *eis sáhe*), *i. e.* »he is good», although at the same time their whole behaviour clearly shows that they stand in fear of him.

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The drinking of some intoxicating liquor also forms an important part of a death-feast, and it is considered necessary that the men taking part in the drinking-bout should get more or less intoxicated. The strong algaroba beer is most appreciated but at those times of the year when there is no algaroba the Indians have to be content with beer brewed of tusca or chañar. Only in exceptional cases do the Chaco Indians drink maize beer at their feasts. The drinking of intoxicating liquors on these occasions has a ceremonial character and is believed to fill those taking part in it with power of resistance against the disease and death-demon.

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2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI12
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As mentioned before, in case of illness the Choroti try to back up the work of the medicine man by dancing; such dancing is then regarded as magically counteracting the influence of the spirit of the illness.[2] The spirit of the illness is by the Choroti called »mohsek ihitek», i. e., the arrow-shooting spirit, which, as I have pointed out in the foregoing, signifies that the Indians believe that the »mohsek» in question has the power of causing illness by arrow-shot. The belief that illnesses could be caused by »fairy-darts» is met with among a number of different peoples, and, as we know, was formerly common also in Sweden.

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[2] Karsten (1), p. 14.
[3] Karsten (2), p. 30.
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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Of all this there was a cessation as soon as I had approached the village near enough for the dogs to give warning, by barking, that a stranger was coming. In answer to my question why there had been singing, drumming and shaking rattles, I was told that there had been a dance for somebody who had died in the village. From what the Indians represented to me I gathered that the dancing, the singing, and the »music» had been performed in order to protect the soul of the dead person from being attacked by evil spirits, but it is possible that, instead of this, the dancers were aiming at protecting the villagers from being harmed by the spirit of the deceased, or from the evil spirit who had killed the newly dead person. The latter explanation is more in correspondence with other observations of the customs of the Choroti Indians.

In the literature one finds a statement that the Choroti bury their dead in a lying-down position.[1] This mode of burying does occur among the Choroti, but these Indians also inter their departed ones in a hunched up, squatting position.[2] As an instance, the Choroti who were living near Tatarenda declared that they usually buried their dead in the last-mentioned position. This mode of burial may possibly be connected with cultural influence from the neighbouring Chiriguano, but in such a case that influence must have been active also among the Choroti living right away on the Pilcomayo, for all the Choroti skeletons (three) that Nordenskiöld excavated in the neighbourhood of Fort Crevaux had been buried in a sitting posture. Of the three Choroti skeletons unearthed by him at Caiza in the Tatarenda district, one was found »in a doubled-up posture, with one hand on the top of the head and the other placed on the chest».[3]

During our journey Nordenskiöld only excavated these six Choroti skeletons. He has kindly permitted me to publish his notes on the circumstances under which the skeletons were found. The data above referred to I have taken from the catalogue supplied by Nordenskiöld to the Ethnographical Section of the Riksmuseum, in which his original notes upon modes of burial are embodied (see preceding foot-note).

Even in my earliest published account of the Choroti Indians I made

[1] Karsten (3), p. 304.

[2] von Rosen (3), p. 13.

[3] This according to Nordenskiöld's original notes in the Riksmuseum inventory, 03. 5. Whether the skeletons excavated at Caiza were found in a sitting or lying-down position is not expressly stated in the notes. But as regards the Choroti skeletons excavated at Crevaux, Nordenskiöld especially points out that they had been buried in a »sitting posture».

2: Karsten E-5 (1911-1913)1932 SI7 Mataco
Toba SI2
Choroti SK6

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shape of a horse [1] — an animal which is regarded with superstition by the Choroti — and will kill the »good spirit» of the inimical sorcerer. The latter being thus deprived of his assistant genius, will fall an easy victim to his assailant.

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The guardian spirit is not hereditary but is acquired individually in the course of life and to a certain degree through teaching. The older a person grows, the more power and influence he is believed, by the Tobas, to gain over his *peyák nõtta*; hence the medicine-men are generally men of advanced age. The same may be said of the *Choroti*, who regard every old man as being more or less a sorcerer and endowed with supernatural powers. Since the women are always physically and spiritually weaker than men, they have always more difficulty in obtaining guardian spirits. I only know of a special initiation for women, who dedicate themselves to the exercise of the magic art, in the case of the Choroti. A women who wants to become a sorcerer, I was told, must eat a raw chirimoya fruit (*Anona chirimolia?*). When ripe, the chirimoya is edible and good; but in an unripe condition it is said to be poisonous, and a person eating of it according to the belief of the Indians will die or fall ill. If however the woman, while she is eating the raw fruit, performs the ceremony *Kausimá* with the magical rattle staffs, she will escape harm, and she will moreover in the future be able to conjure spirits with success. This idea is in fact typical of the initiation ceremonies of the Indians: the woman has been in contact with evil spirits but has been able to resist them, in consequence she has been rendered immune against them and acquired power over them which enables her to use them for her own ends in the future.

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Apart from the fact that the »good spirit» of the Choroti medicine-men is at least in some cases believed to appear in the form of a horse, the »good spirits» are in their external appearance like other spirits. The *Tobas* say that their *peyák nõtta* dwells in the heavens (*piyim*) from where he comes down to assist the medicine-man who invokes him. Similarly the Choroti say that their *mõhsek eis*, when summond by the sorcerer comes down from the sky, but the »sky» (*põle*) is not to the Choroti a definite place like the *piyim* of the Tobas. *Piyim* has developed into a mythological concept: it signifies Paradise or the realm of the dead of the Toba Indians. When a Toba Indian dies, I was told,

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[1] Since the horse was introduced among the Chaco Indians by Europeans, this is not of course an original idea of the Choroti.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
Choroti SK 6

soon became skilled riders, but among the other Pilcomayo tribes they are rare. Before the Chaco Indian became acquainted with the white man, the dog was the only domestic animal known to him. These half-starved, fierce, and treacherous dogs are a real nuisance in the Mataco and the Choroti villages to the white traveller who has to stay among the Indians, because in their hunger they are always on the alert to rob him of edible things, among which they include not only his provisions, but also his saddlegear, boots, and other leather goods. Although the Mataco and the Choroti treat their numerous dogs badly and evidently have little use for them even as watches, yet in a way they regard them as members of the tribe. They never kill a dog, however old and wretched it may be, and when it dies they lament over it just as they lament over a fellow-tribesman. This curious practice is due to superstitious reasons, fear of the spirit of the dog. Like many other South American Indians, the natives of the Chaco believe that the souls of their dead tribesmen may reincarnate themselves in the dogs.

Only the Tobas, who are culturally superior to the rest of the Pilcomayo tribes, feed their dogs properly and have real use for them both in hunting and as watchdogs. But even these dogs are of uncertain breed and by nature so savage that for my own part I failed in my attempts to train them according to European methods.

These general remarks on the material culture of the Pilcomayo tribes may suffice as a basis for the following description of their social customs and their intellectual culture. I shall repeatedly have occasion to touch upon the ergology of the Indians in describing their magical ornaments and amulets, as well as various objects used at religious ceremonies.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
Choroti SK 6

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2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

old men to die a natural death, but when they grow very weakly and sickly they kill them with an arrow-shot in the heart, whereupon they burn them with all their property instead of burying them, which among the Choroti is the general mode of disposing of the remains of the dead. The reason which they gave me for this custom was that if an old man is allowed to die a natural death he will be changed into an evil demon (*mōhsek*), who will rage in the village and kill all the people. This, according to their idea, can be prevented by giving the old men a premature, violent death.[1]) In order to understand this custom we must, moreover, take into consideration that to the mind of these Indians *all* aged men are more or less versed in the magic art, *i. e.* are sorcerers, and the spirits of sorcerers are specially feared.

The fact that old men and sorcerers are believed to be transformed after death into evil *mōhsek* seems to suggest that these spirits or demons are nothing but disembodied human souls, who have in the after-life been changed into supernatural and mostly evilly disposed beings. As a matter of fact, the death-spirit residing in the grave where a dead body has been buried is called *mōhsek* by the Choroti. Like most other primitive peoples the Choroti fear the burial-places because they fear coming in contact with the spirits haunting these places. It seems therefore evident that at any rate the souls of certain persons are changed into *mōhsek* after death. The word *mōhsek* may therefore be best translated into 'ghost'. The Indians only use it of the disembodied souls or spirits of dead men, but not of the shadow-like »double» of a living person, for which they have no particular word. Even when speaking of a recently departed person they generally simply use the expression *yāl*, *i.e.* »the dead one». *Mōhsek* particularly seems to have reference to the spirits of men who died long ago, and these spirits as a rule are more evilly disposed and more feared than the spirits of Indians recently departed.

The Choroti, like other Chaco Indians, do not deify inanimate objects of nature to the same extent as many other South American tribes. Yet

[1]) Nordenskiöld's categoric statement as to the practice of infanticide and parricide among the Choroti therefore is not correct. (»Der Mord beschränkt sich auf den Kinder- und Elternmord»; and: »Wenn ein Indianer seine alte blinde Mutter oder seinen verkrüppelten Vater tötet, so befreit er sie selbst von einem Leben das ihnen eine Last ist und sich selbst von einer Extramühe im Kampfe ums Dasein.» (*Indianerleben*, p. 38). As I have stated above, the killing of parents is limited to old men, and this custom must wholly be explained from the superstition of the Indians. Infanticide again is limited to the cases mentioned by me in a previous chapter.

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the death-spirit from rising from the grave. The Tobas believe that if shortly after the burial the body is exhumed, the spirit will come out and may transform himself into a tiger which will kill the people. But the latter may sometimes happen even without any particular profanation of the burial-place.

The customs here described with particular reference to the Tobas are typical of the burial customs of the Pilcomayo tribes in general. Thus the Choroti and the Mataco as a rule bury the corpse in a seated or reclining posture as do the Tobas. There are however exceptions to this rule, and at least in one case which came under my notice the dead Choroti man had been buried in a lying posture. At each end of the grave had been placed a clay pot, partly filled with water. The idea underlying this arrangement was not quite clear. Since among the Indians supernatural power is frequently ascribed to clay pots, it is probable that they had been placed on the tomb for some superstitious reasons, perhaps with a view to keeping off the death-demon. I may add that among the Chaco Indians offerings of food and drink, or other kinds of offering, are not generally made to the spirits of the departed. Certain traces of food and drink offerings have been found among the Mataco, but on the whole we may say that the cult of the dead, which plays such an important part in the religion of most South American Indians, is unknown to the natives of the Gran Chaco. When I asked the Choroti whether they would not offer food and drink to the spirit of an Indian who had recently been buried, they laughed and answered: »He is dead, he wants no food». Still of course neither the Choroti nor other Chaco Indians have wholly divested their minds of the primitive idea that in the after-life the soul has to a certain extent the same wants and appetites as in this earthly life.

As a rule the place where a person has been buried is not, among the Choroti and the Mataco, marked by any tomb or heap of earth thrown up over the grave. Some tribes, however, at any rate the Choroti, are in the habit of constructing, over the place, a primitive kind of hut, consisting of a roof of twigs and grass resting upon four poles. The hut is said to be »the habitation of the *móhsek*». Chiefs and old family fathers are particularly honoured in this way after death.

The customs practised immediately after a death are in their main features the same in all Chaco tribes. The Choroti, as soon as the sick Indian has drawn his last breath, start to make a tremendous noise with all sorts of rattles and by shouting and wailing. The medicine-men

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arrived at this plantation to look for work. Led by their chiefs, they had made the long journey from the region of their homes. The chiefs, some of whom had met us in the Chaco, whilst others had only heard of us, wished to pay us a call. Personally I do not possess any notes about this reception, but I have come across some in Fries' diary. He thus refers to the incident: »When the Choroti Indians, whom we knew from Tatarenda and who were now working here, saw us, they came, almost to a man, and greeted us, being evidently very glad to meet us again. *The principal chief, at the head of all the lesser caziques*, was among those who came and paid us their respects.»[1]

A favoured position in the village community is that held by the medicine men; for their services they are rewarded by a — from a Choroti point of view — generous remuneration in the form of food and drink. That among the Choroti the medicine men are held in great esteem, and that everybody is anxious to be on good terms with them, appears only natural to anyone with a knowledge of what an important part magical conceptions play with these Indians. It is largely by the Finlander explorer, Rafael Karsten — oft-quoted in the present work — that ethnological science has been enriched by information and detailed reports on the magical customs and practices of the Choroti, as well as of other Chaco tribes.[2]

The Choroti Indians believe that man, all his life through, is more or less subject to influences from spirits, who, on the whole, are of a harmful nature. Especial danger is to be apprehended from spirits on certain occasions such as child-birth, pubescence and death. Usually the evil is worked by a spirit, »mohsek», entering a person through one of the orifices of his body and thereby assuming possession of him. If at birth a child is deformed or very sickly, it is supposed to be possessed by some evil »moshek», and is on that account killed.[3] When a girl has attained the age of puberty, during the first critical, time she must keep a covering over her head, so that no evil spirit may be able to enter her body by way of her nose, mouth, eyes or ears.[4] The occasion of a girl attaining puberty is celebrated with a dance which undoubtedly is of a magical

[1] Professor Robert Fries: diary, X, p. 14. Italics by von Rosen.
[2] See Bibliography attached.
[3] Karsten (4), p. 176.
[4] Karsten (4), p. 165.

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776 [764] character.[1] When there has been a death in a village, certain precautionary measures have to be taken in order that the spirit who caused the death may not in some way or other work further evil.

But also on all other possible occasions the spirits are capable of working harm, indeed, Karsten is of opinion that the Indians, even when doing such commonplace acts as eating and drinking, fear that malicious spirits may surreptiously effect an entrance into them along with the food or drink.[2] That the Indians have this belief is not so very remarkable. Similar conceptions are to be found among many peoples in different continents, and have also been widely spread in Europe. To mention one instance; in olden times on yawning or sneezing there was the custom of making the sign of the cross before the mouth, a custom founded on the fear that the devil or some of his kindred should slip in through the open mouth.

751 As a means of protecting themselves against evil spirits, or for securing, in a magical way, other advantages, the Choroti make use of a variety of devices, the most important of which are the covering of the body, painting of the face, dyeing textiles and other objects red, tattooing, wearing of amulets and certain ornaments, singing, blowing of whistles and shaking rattles, beating of drums, dancing, games of hazard, cutting or pulling out of hairs, and blood-letting.

The custom, previously mentioned, of the girls at their first menstruation keeping their heads covered with a cloth, is an instance of the first-mentioned magical means of protection.

302 751 At dances and lovers' meetings the Indians paint their faces (see page 78), but they adorn themselves by face-painting also on other occasions. As an instance, men as well as women usually had their faces painted when visiting us in our camp. At the time we took this to be a manifestation of Indian vanity, but after having read Karsten's detailed account of the reasons for painting the face among the Indians, I am more inclined to the belief that this painting had been applied as a protection against such unknown spirit forces as might possibly threaten them in the camp of the whites.

831 302 751 That painting of the face is done at dances and meetings of a sexual character, is a circumstance connected with the Indian belief that occasions

[1] Karsten (1), p. 36, and (1), p. 17.
[2] Karsten (3), p. 205.

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and ornaments, wearing many-coloured mantles, necklaces, ear-tubes, big ostrich plumes on the head, and having the face painted. The men form a circle round the girls with arms interlaced round each others' waists. The dance chiefly consists in jumping with both feet at once and stamping hard upon the ground to the measure of a very noisy but monotonous chant. The ceremony is called *níssammaha aséhne*, »to hurry on the girls». The expression »to hurry on» (*níssammaha*), as we shall find later, is used by the Chaco Indians in many cases where there is a question of magically influencing the course of nature for good and useful ends. Just as the Indians believe they can hurry on or promote the growth of the fruit by influencing the tree spirits and by exorcising the evil demons who are trying to blight them, so they »hurry on» the girls in the sense that by the dancing and chanting the latter are prompted to make a definitive choice of a husband, whereas at the same time evil spirits are kept away from them. Courtship and marriage, it should be noted, are of those numerous critical occasions in human life when malignant supernatural powers are believed to be more than otherwise on the alert to do harm and spoil the good designs of men, and as usual the weaker sex is supposed to be particularly exposed to them. The courting dance *Avúshe* is thus in part held with the intention of keeping off this invisible molestation, so that the girl's choice of a consort for life may take place under good auspices.

A man who is not taken away from the dance by a girl has no possibility of getting either a temporary paramour or a wife. The matter wholly depends on the girls, and there are of course always men who for one reason or another are despised. I sometimes noticed such unfortunate lovers at the Choroti dances. Their experience had led them not to take part in the dances; they were sitting in a hut close by, eagerly shaking the rattle gourd (*pelíte*), as they said, »to hurry on the girls» and thus possibly to have better luck in the future. Since the women are much fewer in number than the men, it is necessary that some men are obliged to remain bachelors all their lives. These men were ridiculed not only by the women but also by their more fortunate brethren. On the other hand, there are no unmarried women, and even widows soon remarry unless they are very old.

The men may try to attract the girls at the dances by their beautiful ostrich plumes, necklaces, and other ornaments, but these means of attraction certainly only play a subordinate part. The Choroti woman evidently expects something more of a man whom she thinks of marrying

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rare in all South America, and in the Chaco they are found only among such an advanced tribe as the Tobas, and, in a certain sense, among the Lenguas. The latter Indians, according to Mr. Grubb, ascribe the creation of all things and of man to a being disguised as a beetle, but this being is without moral attributes and in fact is only of purely mythological interest. As to the Tobas, they believe in two high gods or Supreme Beings, who — just as is the case with the Creator-Beetle of the Lenguas — only figure in their mythology but play no rôle in their practical religion. Moreover, the ideas they entertain about these Supreme Beings are not consistent but seem to represent two different stages in the evolution of their religious thought. These beings are especially spoken of as the creators of the world and of mankind. According to the apparently older version, all things were made by a bad deity Kaloaraik, «The Evil One», who created the world as miserable and full of suffering as it actually is in the mind of the Tobas. Again, according to the younger version, the world owes its origin to a good deity Peritnalik, who created things good and useful and thenceforward took benevolent care of mankind.

Since no kind of worship is paid to these Supreme Beings they have more interest from a mythological than from a religious point of view. I shall therefore deal with them again in a later chapter in connection with other myths of the Tobas.

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In practical religion spirits of a lower order play the main rôle. Of these spirits some are in their nature good, others again bad, but — as is usual among savage peoples — the latter impress the mind of the Indians more than the former and are therefore more conspicuous in their religion. The Choroti call these spirits *möhsek*, the Ashluslay *sitché*, the Mataco *aittah* or *nahüt*, and the Tobas *peyák*. In examining the different applications of this belief in spirits, we find that to the primitive Indians it is obviously of great practical importance: it compensates them for the lack of a notion of natural laws. Stupendous phenomena of nature, events otherwise unaccountable to them, especially disease and death, are explained as their mysterious actions. There are spirits inhabiting inanimate objects of nature and heavenly bodies, there are spirits embodied in animals and plants, and lastly, there are spirits who are not particularly attached to things animate or inanimate but have an independent existence, hovering about in the forests or on the plains, or in the air, causing such phenomena as thunder and lightning, eclipses of the sun and the moon, drought devastating hurricanes, etc. Worst of course are those demons who are regarded as the causes of disease and death, and

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in their magical dances and conjurations the Indians as a matter of fact most often deal with these particular evil spirits.

These are features common to the religious beliefs of all Indians of the Chaco; indeed they are found among all South American Indians. But even in the Chaco this general belief in spirits appears in somewhat different forms among different tribes. The *Choroti* fancy that the spirits, *mōhsek*, in their external appearance have the shape of old, withered men (*kihīlahs*). They are, in the imagination of the Indians, provided with wings, which enable them to move rapidly through the air. Owing to their bird-like appearance the spirits are also called *ahuena* («the birds»). They are countless in number, mostly invisible, and as a general rule evilly disposed towards mankind. I never met an Indian who professed to have *seen* a *mōhsek*, but nearly all say that they have *heard* their voices at night. One peculiarity of the demons of the Chaco Indians is that they only exist at night. As soon as darkness sets in the Choroti Indian fears mysterious dangers from the *mōhsek*, who are then believed to draw near the villages in great numbers and even to enter into the huts, visiting the inhabitants with sickness and death. This is the reason why a traveller living with the Choroti can hear from some house nearly every night the low chant of some old man accompanied by the dull sound of the rattle gourd, *pelite*, with which he tries to conjure and keep off the supernatural pests. At daybreak however the spirits are supposed to leave for the forests and the plains — with a piping or whistling sound, the Indians explained to me, which they are very clever in imitating. For this purpose the Choroti use a special kind of round whistle which they generally wear hanging round the neck as an ornament. At their religious dances they produce, from time to time, shrill whistling sounds with these whistles, professedly with a view to conjuring the *mōhsek*. The Indians believe that they can keep supernatural beings at bay by imitating them in their external appearance or their sounds.

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In the Chaco many weird sounds are heard at night which are apt to fill the natives with superstitious fear. The Choroti frequently told me about the »nightly whistling of the spirits» (*yap mōhsek ahuāh*). The peculiar piping or whistling which is most often identified with the sound of the spirits is, I believe, produced by certain insects living on the stems or branches of the trees. The spirit of the tusca tree was specially mentioned to me, but this spirit is said to be a »good» being.

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The idea of the Choroti, that the spirits have the shape of old men, has given rise to a peculiar and cruel custom. They do not allow their

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old men to die a natural death, but when they grow very weakly and sickly they kill them with an arrow-shot in the heart, whereupon they burn them with all their property instead of burying them, which among the Choroti is the general mode of disposing of the remains of the dead. The reason which they gave me for this custom was that if an old man is allowed to die a natural death he will be changed into an evil demon (*möhsek*), who will rage in the village and kill all the people. This, according to their idea, can be prevented by giving the old men a premature, violent death.[1]) In order to understand this custom we must, moreover, take into consideration that to the mind of these Indians *all* aged men are more or less versed in the magic art, *i. e.* are sorcerers, and the spirits of sorcerers are specially feared.

The fact that old men and sorcerers are believed to be transformed after death into evil *möhsek* seems to suggest that these spirits or demons are nothing but disembodied human souls, who have in the after-life been changed into supernatural and mostly evilly disposed beings. As a matter of fact, the death-spirit residing in the grave where a dead body has been buried is called *möhsek* by the Choroti. Like most other primitive peoples the Choroti fear the burial-places because they fear coming in contact with the spirits haunting these places. It seems therefore evident that at any rate the souls of certain persons are changed into *möhsek* after death. The word *möhsek* may therefore be best translated into 'ghost'. The Indians only use it of the disembodied souls or spirits of dead men, but not of the shadow-like »double» of a living person, for which they have no particular word. Even when speaking of a recently departed person they generally simply use the expression *yäl*, *i.e.* »the dead one». *Möhsek* particularly seems to have reference to the spirits of men who died long ago, and these spirits as a rule are more evilly disposed and more feared than the spirits of Indians recently departed.

The Choroti, like other Chaco Indians, do not deify inanimate objects of nature to the same extent as many other South American tribes. Yet

[1]) Nordenskiöld's categoric statement as to the practice of infanticide and parricide among the Choroti therefore is not correct. (»Der Mord beschränkt sich auf den Kinder- und Elternmord»; and: »Wenn ein Indianer seine alte blinde Mutter oder seinen verkrüppelten Vater tötet, so befreit er sie selbst von einem Leben das ihnen eine Last ist und sich selbst von einer Extramühe im Kampfe ums Dasein.» (*Indianerleben*, p. 38). As I have stated above, the killing of parents is limited to old men, and this custom must wholly be explained from the superstition of the Indians. Infanticide again is limited to the cases mentioned by me in a previous chapter.

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there are several evidences of a nature-animism, although as a general rule only such objects and phenomena as especially strike their imagination or with which some remarkable incidents are connected, are incidentally or permanently looked upon as being animated by spirits. There are evil demons in the sky, which among other things cause such strange phenomena as eclipses of the moon, of which the Choroti have the same idea as the Mataco and most other Chaco tribes. Other evil spirits of the sky cause drought, which in the Chaco forms the greatest obstacle to a successful cultivation of the fields. The demons keep the rain back, and the Indians in consequence try, during the dry season, to conjure them by drumming, shaking rattles and chanting so as to compel them to release rain. On the other hand, there are demons operating in the violent thunderstorms, although these are generally accompanied by torrents of rain. The Choroti believe that thunder and the flash of lightning are caused by a great number of *möhsek* who are rushing through the air and making an onset upon the village. These spirits are more often called *ahuéna*, »the birds», and thunder and lightning are therefore generally called by the Indians simply *ahuéna*, although the proper name in the Choroti language is *süntini*. Every time a burst of thunder is heard, the Indians, sitting in their huts, begin to shout and scream loudly, in order to frighten away the molesting supernatural visitors. There are evil spirits in the violent whirlwinds and sand-storms so common in the Chaco, as well as in the cold south wind, *niuk*, which during the dry season sweeps over the plains and produces rheumatism and chills among the natives, badly equipped as they are against cold weather. The warm north wind again, *ükine*, is sent by »good» spirits. Thus the radical contrast between the cold south wind and the warm north wind, both of which are sent by supernatural agents, has been to the Choroti the main reason for making a distinction between two of the four cardinal points.

Spirits, *möhsek*, are also believed to animate *trees* and *plants* — bad spirits poisonous and harmful plants, good spirits the beneficial and useful ones. The ideas which the Indians entertain about plant spirits and the customs to which they give rise, are substantially the same among all the tribes, and I shall presently give an account of them.

The Choroti also believe in *animal* demons. Thus they share the belief, held by all Indians in tropical and subtropical America, that a jaguar which attacks Indians or appears under unusual circumstances, is a »man-tiger» *i.e.* a man, generally a sorcerer, who has assumed the shape of this beast. Even in his lifetime a sorcerer may incidentally change

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776 himself into a jaguar and, appearing in this disguise, kill people. Similarly,
754 an evil wizard is believed to be able to send his soul into a horse, in which
825 shape he will kill the person whom he wishes to bewitch. The horse in fact is the particular shape in which the tutelary spirit of a sorcerer is believed to appear, and is therefore looked upon as a demoniacal animal. Of other animals which are looked upon with superstitious fear the deer must be especially mentioned. This shy and innocent animal is regarded as an evil spirit, a *möhsek*, and its flesh is never eaten by the Choroti. On this point these Indians share a belief which, curiously enough, is met with among many tribes in different parts of South America. In the noiseless movements of this animal and the mysterious rapidity with which it disappears into the forest there is in fact something »ghost-like», which is apt to awaken superstitious awe in primitive minds.

754 Just as a sorcerer is supposed to be able to change himself into a jaguar
825 when he wishes to harm other people, so he is also believed occasionally to assume, for the same purpose, the shape of a venomous reptile, for instance that of a rattlesnake. The bite of a venomous snake is generally attributed to the mysterious operation of an evil wizard.

776 Of spirits inhabiting what we should call inanimate objects the spi-
823 rits of the *stones* are of particular interest. In order to understand the ideas which the Choroti entertain in this respect it should be borne in mind that in the interior parts of the Gran Chaco, and particularly in the country inhabited by the Choroti, stones are extremely rare or almost unobtainable. It is in part due to this fact that the Choroti regard stones and pebbles in general with superstitious dread and would never, for instance, put on a necklace in which a stone of some kind entered as a decoration. The reason which they gave me for this aversion was that an evil spirit, a *möhsek*, dwells in the small stone and would infallibly invade the person who hung it on himself. The explanation was, moreover, added, that when a sorcerer bewitches an Indian he avails himself of a pebble-stone which he throws against his victim making him fall ill and
[755] die. Similarly, when the medicine-man cures the patient, he extracts the disease-demon in the form of a small stone. In other words, stones are shunned because they form one of the magic arrows which the sorcerers use to kill or harm their enemies.

753 The theory which the Choroti have formed about *sickness* and *disease* has appeared from some of the above statements. Sickness, like epidemic disease, is always due to supernatural operation. It is caused by a demon, a *möhsek*, directed by a human sorcerer. Wizards cause sickness by

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with the Indian himself: when intoxicated by brandy he gets mad and is always ready for fights and outrages; on the other hand, his own native beers comparatively seldom have such bad effects. As a rule they render him happy and joyful, virile and courageous, and make him forget the troubles and hardships of life. This is the reason why, to the Indian mind, there is a *good* deity or spirit residing in the native algaroba beer. But since this deity in the first place inspires the Indian with *virile* qualities, the drinking of this as well as of most other intoxicating drinks is strictly limited to the men. Women never drink algaroba beer, except perhaps some very old women who are freed from the restrictions normally laid upon the weaker sex.

The great drinking-feasts of the Chaco Indians during the »season» will be described later on, as also the ceremonies with which the sacred drinks are prepared.

When the Chaco Indians speak of their »good spirits», however, they generally mean spirits of another kind. The medicine-men as a rule speak of these spirits in the singular, meaning thereby a mysterious personal guardian spirit of their own. Such a being is for instance the *peyák nôtta* of the *Toba* medicine-man, a kind of individual guardian spirit with whom the Indian has entered into a special relation and whom he asks for assistance in sickness and in every necessity. Among the Tobas all professional medicine-men and many of the older men are said to have such guardian spirits; even some of the women, who then exercise the profession of female sorcerers. The more the person in question has acquired power over his or her »good spirit», the more that person is in possession of what we should call supernatural powers. When, for instance, the medicine-man has to cure a sick person, he summons his own guardian spirit and by his aid expels the disease-demon from the patient's body. Similarly, those sorcerers who practise black or nefárious magic are able to harm their fellows only by the aid of their assistant spirits whom they invoke and who will despatch a spirit against their victim.

If a sorcerer wishes to harm another sorcerer, who of course also has his guardian spirit, or some other person in possession of such a spirit, he can do so only by fighting and vanquishing the assistant spirit of that person. This was especially made clear to me by the *Choroti* Indians. A sorcerer who wants to kill or harm such a person, I was told, invokes his own »good spirit», this comes down from the heavens in the

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C 754 776 shape of a horse [1]) — an animal which is regarded with superstition by the Choroti — and will kill the »good spirit» of the inimical sorcerer. The latter, being thus deprived of his assistant genius, will fall an easy victim to his assailant.

C 756 888 776 The guardian spirit is not hereditary but is acquired individually in the course of life and to a certain degree through teaching. The older a person grows, the more power and influence he is believed, by the Tobas, to gain over his *peyák nōtta*; hence the medicine-men are generally men of advanced age. The same may be said of the *Choroti*, who regard every old man as being more or less a sorcerer and endowed with supernatural powers. Since the women are always physically and spiritually weaker than men, they have always more difficulty in obtaining guardian spirits. I only know of a special initiation for women, who dedicate themselves to the exercise of the magic art, in the case of the Choroti. A women who wants to become a sorcerer, I was told, must eat a raw chirimoya fruit (*Anona chirimolia?*). When ripe, the chirimoya is edible and good; but in an unripe condition it is said to be poisonous, and a person eating of it according to the belief of the Indians will die or fall ill. If however the woman, while she is eating the raw fruit, performs the ceremony *Kausimō* with the magical rattle staffs, she will escape harm, and she will moreover in the future be able to conjure spirits with success. This idea is in fact typical of the initiation ceremonies of the Indians: the woman has been in contact with evil spirits but has been able to resist them, in consequence she has been rendered immune against them and acquired power over them which enables her to use them for her own ends in the future.

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T C 776 772 Apart from the fact that the »good spirit» of the Choroti medicine-men is at least in some cases believed to appear in the form of a horse, the »good spirits» are in their external appearance like other spirits. The *Tobas* say that their *peyák nōtta* dwells in the heavens (*piyim*) from where he comes down to assist the medicine-man who invokes him. Similarly the Choroti say that their *mōhsek eis*, when summond by the sorcerer comes down from the sky, but the »sky» (*pōle*) is not to the Choroti a definite place like the *piyim* of the Tobas. *Piyim* has developed into a mythological concept: it signifies Paradise or the realm of the dead of the Toba Indians. When a Toba Indian dies, I was told,

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[1]) Since the horse was introduced among the Chaco Indians by Europeans, this is not of course an original idea of the Choroti.

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in the conjurations of the Toba medicine-men, as we shall presently find.

These conjurations are varied with other manipulations, above all with blowing, spitting, and rubbing the bad spot. Massage regularly forms part of the treatment applied by the Chaco medicine-men, and is the only action which may really have relieving effects. — Ultimately the doctor again leans over the patient and starts to suck vigorously the bad spot. He turns away, spits and hawks up and behaves as if he were going to vomit. Thereupon he takes something from his mouth and, turning to the bystanders, shows it to them: it is the arrow, consisting of a pebble, a piece of bone, etc. which he pretends to have extracted from the patient's body. The latter should now recover; but it may be that there are several of them in his body, or that a new arrow is sent into it which he will feel on the following night. Generally therefore the treatment must be continued for several evenings.

The Choroti medicine-men also invoke their guardian spirits (*mōhsek eis*), and if they succeed in extracting the arrow, this is said to be ultimately due to the assistance of their good spirits. The invocation of the »good spirit« in connection with the treatment of sickness is however a form of worship that I have studied much better among the Mataco and the Tobas.

The *Mataco* have exactly the same theory as to the nature of bodily disorders as the Choroti, ascribing curable »sickness« to possession by an *aittáh slahsa* (a »little« *aittáh* or demon) and mortal epidemic disease to a *nahút*. The ultimate cause of sickness is witchcraft. To extract the »arrow« or splinter (*alák*) discharged by the demon or his human controller is the ultimate aim of the medicine-man. But he cannot do it with his own powers, he needs the aid of his »good spirit«, the *aittáh talák*. If the good spirit does not come down to his assistance, the patient is bound to die. The invocation of the good spirit, or the prayer, is therefore the last and decisive action of the medicine-man's treatment of the sick person.

Whereas the Choroti medicine-man does not generally use any magical instrument when he treats a patient, the particular instrument of the Mataco doctor is a sort of rattle, called *tahis*, consisting of a number of pieces of tin arranged round a circular piece of leather. When the instrument is shaken it produces a dull sound which is believed to inspire the spirits with fear. At certain other conjurations it is worn by the medicine-man like a cincture round the loins.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

however, that this object, on account of its weight and shape, would be rather unsuitable for a head ornament. At an attempt at fixing this bunch in a band tied round my forehead, the cluster overbalanced at the very first sharp movement. With some Indians (e. g., the Pueblo Indians of New Mexico) it is the custom at certain dances to hold branches in the hands,[1] and the Mataco, on occasions, dance round two men who are each holding a bunch of sugar cane, resting it on the ground. In this

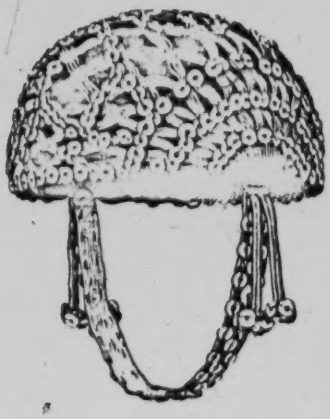

Fig. 46. Hair net, with chin strap of red, woollen yarn. The technique in the knitting work resembles what is known as macramé lace. Hair net as well as chin strap decorated with small shell spangles. Choroti, Gran Chaco. Bolivia. $^1/_1$. Riksm. 10. 3. 15.

Fig. 47. Hair net of red woollen yarn. Knitting technique resembling that of macramé. In the chin strap, which consists of grey woollen yarn, small downy feathers are worked in. Choroti, Gran Chaco. Bolivia. $^1/_1$. Riksm. 03. 3. 5.

latter case the dance in performed in order to hasten the ripening of the sugar cane.[2] The fan palm being of great importance in the food-getting of the Choroti, it is not inconceivable that the palm-leaf bunch here mentioned has been used at some magic dance, held with a view to obtaining an increased supply of palms. That palms are sacred trees, is a universal idea with the Indians,[3] a fact that enhances the possibility of this cluster having had some magical purpose. It may perhaps appear strange that I did not, without further ado, accept the statement of the

[1] Donaldson (1), plates facing pp. 117 and 119.
[2] Karsten (1), p. 20.
[3] Karsten (4), p. 126.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

I cannot tell, but from an analogous carving from the Lengua it is very probable that they represent spirits.[1]

Most rattles contain seeds, and in many of them are also found a large number of metal fragments (see synoptical table below). The latter as a rule consist of small, square pieces of tin plate, for the most part with a side of from 5 to 15 millimetres. Bits of glass do not unfrequently occur in the rattles, although never in any great numbers; generally only a few bits of glass are found in any one rattle. In the Chaco, bits of glass are naturally extremely rare. In the rattle reproduced in fig. 181 were only found bits of tin plate and one cactus spine. Although this rattle belongs to the handle-hole type (see pp. 148, 149), it nevertheless has a hole in the bottom, with a plug of the kind I have described in connexion with the magic rattle, fig. 170. Professor Robert Fries has been kind enough to examine the different kinds of seeds that I have found in magic rattles, as well as in the bag mentioned below, and he then determined the presence of a species of Canna, a leguminous plant, a species of Convolvulaceæ, one of Sapotaceæ and a Smilax. Several kinds of seeds could not be identified from lack of material to compare them with.

Synoptic table of contents in magic rattles from the Choroti.

Riksm. coll. 03. 3.

No. of rattle	Type of rattle	Contents
386	Plugged hole through bottom. Carrying cord (fig. 170).	Seeds (Smilax and undetermined), 1 dark blue piece of glass.
385	Ditto.	Seeds (Smilax and Canna), 2 bits of zinc plate, 1 spiral spring of iron, 2 cactus spines.
390	Plugged hole through top of handle, ditto through bottom. No carrying cord. (fig. 181)	Nine bits of plate iron, one cactus spine.
384	Like foregoing, but no hole at the bottom.	Seeds (Canna and undetermined), 3 bits of plate iron.
387	Ditto.	Seeds (Smilax, a leguminous plant, and of unknown species), 34 black glass beads, 1 blue glass bead and 4 yellowish-green bits of glass.
388	Ditto.	Seeds (Convolvulaceæ and unknown), 1 piece of zinc plate, and 1 uncoloured piece of glass.

From a Choroti I obtained by barter a small bag of red cloth (Riksm. 03. 3. 391), abundantly wound round with caraguatá string, in which he said he used to keep the things that he put into magic rattles.

[1] Grubb (1), p. 75, and fig. 2 on plate following p. 76.

●778 This bag was found to contain a large number of seeds of many different kinds (fig. 182: 22–29); 39 quadrilateral pieces of plate iron (fig. 182: 12, 13, 16–18), 3 curiously shaped pieces of plate iron, about 25 mm in length (fig. 182: 15); 4 plate iron ferrules, or casings (fig. 182: 14; these were probably once mountings on leather fringes attached to a girdle of the type seen in fig. 31); 6 pieces of tin (fig. 182: 1–6); 1 turquoise-coloured glass bead (fig. 182: 20); 1 fragment of ditto (fig. 182: 21); 1 piece of uncoloured glass (fig. 182: 19); 4 blue pieces of glass (fig. 182: 30–33); and 4 green ditto (fig. 182: 7–11). Through friction against each other all these bits of glass have got their sharp edges worn off and their faces ground dull; in shape they now exactly resemble small quartz pebbles. I think it very probable that all the objects contained in this bag, or inside magic rattles, are attributed with magic power, and that, therefore, in the selection of them consideration must have been given not only to their capabilities as sound-producers, but also to their supposed magic properties.[1]

[531]

Fig. 181. Magic rattle of calabash, carved with figures probably of magic significance. Choroti, Gran Chaco, Bolivia. ⅓. Riksm. 03. 3. 390.

000 Many investigators have established the fact that primitive peoples' ornaments are very often of a magic character. Among certain tribes practically all ornaments may be looked upon as being more or less potent amulets. In my book, »Träskfolket» (»The Batwa of Lake Bangweolo»), I have shown that among the tribes around Lake Bangweolo the belief is very widely spread that many ornaments, such as necklaces, bracelets, glass beads, etc., possess magic properties, and that they are able to give protection, not only against divers illnesses, but also against other evil things, such as wild animals, etc.[2]

That the same conception is prevalent among the Indians of South America has been set forth by many students, among whom, von den

[1] Cf. Karsten (4), pp. 142–144.

[2] von Rosen (4), pp. 160, 301–305, 351, 352 and 433.

[text continues on p. 173]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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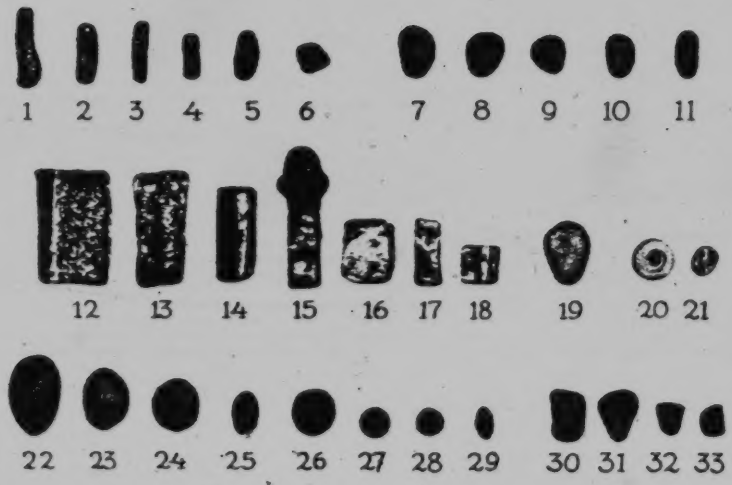

Fig. 182. Specimens of the contents of a bag containing objects for putting into magic rattles. Nos. 1—6, pieces of tin; 7—11, bits of green glass; 12—18, objects of thin plate iron; 19, an uncoloured piece of glass; 20, turquoise-coloured glass bead; 21, fragment of ditto; 22, seed of a sapotaceous plant; 23 and 24, seeds of unknown species of plants; 25, seed of a leguminous plant; 26, seed of a species of Canna; 27, seed of some species unknown; 28, seed of a Convolvulus; 29, seed of a species of Smilax; 30—33, pieces of blue glass. Choroti. Gran Chaco. Bolivia. Natural size. Riksm. 03. 3. 391.

[p.172 is blank]

[Original plate in color. - Analyst]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

515 Painting,
302 pulling out of hairs, and, in certain cases, the cutting of the hair, are,
[782] however, probably to a great extent to be looked upon as acts of magic import.[1]

515 A toilet business that cannot very well be said to be due to any supernatural conception, is, however, lice-picking. Practically all Choroti are infested with lice. When these are getting too troublesome, somebody is called in for assistance (see fig. 89). This is a service willingly rendered by the Choroti, for it is a kind of hunting that they visibly enjoy. To an onlooker it would seem as if the louse hunters also greatly valued
[262] the quarry, for as soon as a louse has been caught, it is eaten by the hunter. But nevertheless I think it a mistaken idea that phthiriophagi find the lice nice-flavoured, for head lice are surely too small to have any particular taste, good or bad. Lice-eating probably has probably originated from a desire to render harmless, in the simplest way, such lice as have been caught. These little animals take a good deal of killing, if done with the fingers only, and there is not always a camp fire handy, into which to throw them; for less squeamish individuals, the eating of the catch undeniably proved the most practical way. I think it very probable that lice-eating also among monkeys has its explanation in a wholly conscious effort at annihilating noxious parasites.

[1] Karsten (4), Chap. 1, 2 and 6.

2: Karsten E-5 (1911-1913)1932 S17 Mataco S17

Choroti SK6

Chapter XVII.

Magical ornaments and amulets.

In my *Civilization of the South American Indians* I have shown that most Indian ornaments have originally had a purely magical significance, although among tribes affected by European culture they have gradually lost this significance and become real »decorations». Among the Chaco Indians also this course of development is conspicuous, for instance with regard to tattooing, body-painting, and the majority of other personal ornaments. The principles of *tattooing*, as it is practised by the Choroti, Mataco, and Tobas, have been set forth by me in a previous chapter.[1]) Tattooing is first of all closely related to scarification and bleeding, customs quite commonly practised by the Indians in all parts of South America. Blood-letting is in itself regarded as a method of purifying the human organism from evil and impure spirits. The spirits are supposed to enter the system, and especially to mix in the blood, thus giving rise to ailments of different kinds and to a state of weakness in the particular part of the body to which they have attached themselves. The Indian thinks that by bleeding that part he will rid himself of the dangerous intruder, just as he sometimes thinks it will leave his body with the mere perspiration, and this belief is naturally supported by the fact that in certain cases such purgations may really give some relief. The Chaco Indians are quite familiar with this idea. Thus among the *Choroti* it is a common thing for the men to bleed themselves with a sharp bone obtained from a certain »magical» animal or a splinter of a certain wood before certain important undertakings. Thus they say that, by drawing blood from the arm, the limb will get more strength for pulling the bow; the practice is therefore especially

[1]) See *supra*, pp. 89 sq.

M 789

M 783 827

C 783 827 224

[p. 179]

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

resorted to before going out on a hunting expedition. If the arms fails or trembles in pulling the bow, its weakness is, according to the idea of the Choroti, due to the presence of a *mohsek* in the blood; and they think that the evil demon will leave the body with the blood drawn. The same custom is practised by other tribes of the Pilcomayo. Thus Nordenskiöld noticed it among the Ashluslay, although he did not understand its real meaning. After a trying fishing or hunting expedition, he says, the Indians may be seen to pierce their arms and legs furiously with hard wooden splinters, so that the blood flows in streams; and in order to get a keener sight to find the nests of the bees they likewise prick themselves above the eyes. In both cases the idea evidently is that the demon which causes the weakness or fatigue will be driven away from the body and perhaps killed with the pointed instrument.

The scars left by the cuts are tended with care and shown with satisfaction, indeed with pride. The Indians showed with apparent satisfaction even those cicatrices which the *palometa* fishes had inflicted on their body with their sharp teeth when they were bathing in the river. It is clear that according to the idea of the Indians not only the bleeding purges the body from impure matter and strengthens the limbs, but that the very scars which remain after the operation possess some mysterious power to keep off evil influences, a power which is much the same as that ascribed to real tattooing marks. This Indian view is especially conspicuous in regard to an operation which the whites sometimes perform upon Indians who have come in contact with European civilization, namely, vaccination. I could myself appreciate the extraordinary importance ascribed to scars when during my stay at Esperanza I vaccinated a number of Chaco Indians who were employed as labourers at the sugar factory. The Christians probably have no remedy which the natives understand so well as this one, and they therefore as a rule submitted to the vaccine inoculation without remonstration, in fact, with pleasure. The small indelible marks which remained were regarded with wonder and admiration, and it was perfectly understood that they were a sort of warranty that the terrible disease would not attack the person wearing them.

Of all personal ornaments *body-painting* is the most important. All Chaco tribes practise it, and men and women alike. In the Chaco, as in other parts of South America, body-painting is essentially a custom of magical significance, as one can easily find out by considering the circumstances under which it is practised. The favourite colour of the

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

M C 764 M [535]

chant the whole night, beating drums and shaking rattles, while the women from time to time utter their peculiar dirge. Similarly among the Tobas drums and rattles are at work for several nights after the death takes place. Among the Mataco dancing forms part of the death-feast, the ceremonial dance *Katináh* being performed every night for a long time. The men taking part in this ceremony have their face blackened with charcoal as a »sign of sorrow», but in reality as a protection against the death-demon. As a rule the Indians would not admit that they feared the departed soul. On the contrary, the Mataco told me that when the medicine-man beats his drum in the evening, he at the same time says to the departed soul in an insinuating voice: »May you stay here, may you not leave us!» The Choroti again, in speaking of the deceased use the stereotyped phrase: *uáhsah* (= *eis sáhe*), *i. e.* »he is good», although at the same time their whole behaviour clearly shows that they stand in fear of him.

M 764 273

The drinking of some intoxicating liquor also forms an important part of a death-feast, and it is considered necessary that the men taking part in the drinking-bout should get more or less intoxicated. The strong algaroba beer is most appreciated, but at those times of the year when there is no algaroba the Indians have to be content with beer brewed of tusca or chañar. Only in exceptional cases do the Chaco Indians drink maize beer at their feasts. The drinking of intoxicating liquors on these occasions has a ceremonial character and is believed to fill those taking part in it with power of resistance against the disease and death-demon.

M C● ●783 768

The way in which the Tobas purify the village after a death is typical of the Chaco Indians. Among all Pilcomayo tribes purification is chiefly carried out by means of fire brands which are waved about in all directions in the evening of the day on which the death takes place. Similarly the destruction of the property of the deceased, the burning of his clothes and his other belongings, the destruction of the gourds from which he has eaten and drunk and, in general, of all things with which he has been in contact, are customary among the Choroti, the Mataco, and the Ashluslay. The taboo of death is attached to them and they can no longer be used. The whole house of course particularly falls under the death taboo and is therefore always burned. But the Mataco and the Choroti are generally not content with burning the hut where the deceased lived and where he died, but as a rule destroy the whole village, considering it polluted to such extent by the contagion of death that the

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI12
Choroti SK6

relatives of the departed cannot live safely in it. This is the reason why in the Gran Chaco a traveller so often encounters remains of Indian villages which have evidently been burnt and abandoned by their inhabitants. The radical destruction of the whole village is always resorted to when several deaths have taken place at short intervals. The relatives of the deceased, when they abandon their own village, generally go and live with their relatives and friends in a neighbouring village, where they stay for some time, or until they decide to found a new settlement in some other part of the country. Custom requires that when the mourners arrive at the other village, they shall be received with wailing.

The Tobas, although they always burn the house where a death has taken place, do not as a rule deem it necessary to destroy the whole village. Similarly the relatives of the deceased generally remain there, building themselves a new dwelling; in other cases they leave the place for some time. The other inhabitants of the village, on the other hand, make no notable change in their mode of life, since they are not to the same extent exposed to danger from the death-spirit as the nearest relations.

Weeping and wailing plays an important part among the mourning ceremonies of the Indians, although it is always limited to the women and the children. The fact that wailing is ceremonial clearly appears from the circumstances under which it takes place. Although it is beyond doubt that the Indians are capable of real feelings of sorrow at the death of a near relation, yet their intense fear of death — including the fear of the dead body — is apparent throughout their mourning customs. The object of the wailing seems to be partly to propitiate the spirit of the departed relative by showing him how deeply the survivors grieve at his death, partly to frighten away the death-demon by the noise. The latter point of view is probably the most important. Wailing is continued for several months after the death. The length of the wailing period varies according to the social importance of the deceased. A great chief is mourned in all tribes for longer than an ordinary member of the community, in some cases up to a whole year. As to the manner of wailing there is a marked distinction between the Tobas and the Mataco on the one hand and the Choroti on the other. The wailing of the Toba women is like a greatly exaggerated loud crying and sobbing which is seemingly the expression of a desperate sorrow. The wailing of the Choroti women is calmer and more like the weeping of a child. Every lamentation consists of a series of sounds produced in a high falsetto voice and

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK 6

take part in the dances, although courtship is connected with them. After the dances sexual intercourse is indulged in by the partakers in the festival, each girl choosing for herself a lover for that night among the dancing men.

Nordenskiöld mentions the Choroti as an instance of Indians who have purely profane dances, pointing out that they have special reference to the sexual life. The latter of course is true of some dances; but Nordenskiöld's mistake in regarding the Choroti dances as purely profane is due to the fact that he did not study their customs thoroughly and therefore failed to see the ideas underlying them. In fact, it is clear that the Choroti dances are gradually losing their original magical or religious significance and have a tendency to degenerate into mere amusements, a course of development which we frequently notice with regard to Indian customs. But even the Choroti dances still, in the main, retain their ceremonial character. Thus my Indian informant, an elderly man, told me that when the Indians dance they collect the whole supply of fruit gathered for the occasion in the house of an old man, i.e. a man initiated in the magic art: and *they believe that the dancing will make the fruit abundant* — not only these particular fruits, but those growing in the forest as well. The principle is again the same as in the Mataco dance to promote the growth of the sugar cane and in the Toba dance to make the chañar fruit abundant. As we have seen, the drumming, practised by the Choroti and the Mataco during the »season», has to a certain extent a similar object. That the chanting which accompanies the dances has at the same time for its object to frighten away evil spirits, is evident.

From this point of view it is interesting to compare the ceremonies performed by the Choroti during the »season» and the sexual liberty connected with them with certain »mysteries» of a similar kind practised by some Indian tribes in other parts of South America. Thus the Yurupary ceremonies of the Uaupes Indians in north-western South America present a close analogy to them. Among these tribes also certain mysterious ceremonies, consisting chiefly in dancing, are performed at those seasons of the year when the most important fruits reach maturity. The object of these ceremonies appears to be to influence the spirits which are thought to animate the plants and thus to promote fertility. Many facts show that these spirits are nothing but souls of the dead which have taken up their abode in the trees and plants. Moreover, at these mysteries sexual intercourse is promiscuously indulged in by those

2: Karsten E-5 (1911-1913)1932 SI7 Matacc
Toba SI 12
ChorotiSK6

taking part in them, evidently with a view to propagating the useful plant spirits and giving them an opportunity to enter into the women and to be reborn in human form.[1])

I believe that in the Choroti dances performed during the algaroba season and the sexual licentiousness which forms part of them we have in fact remains of similar mysteries in the Chaco, which for one reason or another have partly lost their original significance, having now at the outset only the general character of joyful harvest festivals.

Again, the great festival dance of the Tobas is the *Nomi* already mentioned. It is performed on all particularly solemn occasions, but especially during the algaroba season. It is the great »carnival» dance of the Tobas. Even some time before the proper season begins the Indians start to dance, believing that by dancing they can accelerate the ripening of the fruits (*niapilák map*), just as the Mataco and the Choroti believe that they can hurry on the ripening of the fruits and the coming of the season by beating drums. In dancing the Indians arrange themselves in a long line, or so as to form a crescent. With arms interlaced round each other's waists they move, running alternately to the right and to the left and at the same time forwards to the other end of the dancing place where the chain is broken. Thereupon they move back in the same way. As is customary in the Chaco, the dancers themselves chant the measure of their steps in a loud voice. Similarly the women do not take part in the dance although they are allowed to be present as onlookers. — During the season the dance goes on daily and is believed to influence continually the growth of the fruits.

But the *Nomi* dance is performed during the algaroba season with another object in view also. The Tobas believe that at this happy and joyful time they receive invisible guests in great numbers. These are the *kadeɲakál* or *iláh*, i.e. the spirits of departed Toba Indians, who also want to be present at the joyful festivals and to take part in the drinking-bouts. But these guests, who are feared or at any rate awake uncanny feelings in the living, are not welcome and do not receive any sort of cult. On the contrary, measures are taken to keep them off, and the Indians told me that precisely this is part of the object of the dance *Nomi*. The dancing men by means of their movements and their loud chanting prevent the spirits of the dead from approaching the villages or the place where the drinking and feasting goes on.

[1]) See my *Civilization of the South American Indians*, pp. 427 sqq.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

237 292 302 [415] and tied with woollen-yarn on to a small stick or cane splinter (fig. 48), for sticking into the fillet of the frontlet. The Indians take very great care of their feather ornaments, and the easily damaged ostrich plumes (see front-page plate and fig. 49) are kept encased in bamboo. The plume-case reproduced in fig. 50 consists of a piece of bamboo, 50 cm long and 2.5 cm wide. At the upper joint there is a hole, 3.2 cm long and 1.2 cm wide, through which the partition wall has been removed. The bamboo chip cut out in making the hole near the bottom end, is tied over the hole with a thin strip of bast; whereas the upper hole is without such a lid. The lower hole differs from the upper, in that its edges, as well as the edges of the lid, are painted red. I presume that neither of these holes has been made exclusively for the purpose of facilitating the removal of the wall within the joints, but that they have also served to make easier the taking out of the feathers from the case. The painting red of the holes and lid edges has, as I shall show further on, probably been done with magic intent, for the safeguarding of the plumes.

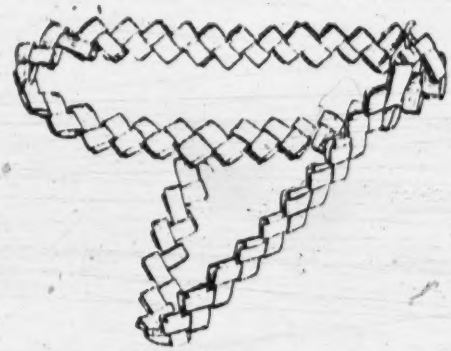

Fig. 44. Frontlet of palm leaf, with chin strap. Choroti. Gran Chaco. Bolivia. 1/3. Rikom. 03. 3. 14.

Fig. 45. »State» frontlet, made of white and pink feathers and down from the pink »spoonbill». Choroti. Gran Chaco. Bolivia. 1/3. Rikom. 03. 3. 13.

The curious object seen in fig. 51 is, it has been stated, meant to be used as an ornament at dances; it is made out of the leaf of a fan palm (Copernicia australis). It seems to me,

sticks, in the holes that have been made, in order to keep them from 301
closing up. After the healing of the wound, these plugs are, however 304
taken out, and it is only when the boys have reached the age of puberty,
that the ear-lobe is gradually distended by means of plugging with a 301
succession of ear blocks, or ear-lobe discs, of increasing sizes. Only youths 304
of mature age, and men, are allowed to take part in certain religious 789
dances. At the performance of these, it is of especial importance to be [884]
protected from evil spirits. According to the belief of the Indians, ear discs afford them such protection,[1] and it is therefore possible that this is the reason why the boys begin wearing ear discs only after having attained puberty. For reasons which I shall explain below, I consider that the *piercing of the ear-lobes by no means always implies wearing of ear-lobe discs.* Among the Choroti, the ears of little girls are often pierced in the [562]
same way as in the case of the boys[2] (see the woman with pierced ear-lobes in fig. 22), *but never once did I see a Choroti woman wearing discs in her ears,* nor is there in the literature on these Indians any photographic evidence to be found, as far as I know, of Choroti women wearing ear discs. Further; neither Baron Erland Nordenskiöld,[3] nor Doctor Rafael Karsten, both explorers who have lived for a long time among the Choroti, are now able to recollect with any certainty having seen any Choroti woman wearing ear discs.

To cause bleeding by perforating the skin, has among the Chorotis[a] — as among other tribes in the Chaco — a magic significance, and the 304
possession of many scars is considered a great advantage. Thus, for 755
instance, the Chaco Indians will with ostentation and satisfaction show even scars from bites of the palometa fish. When the Choroti believe themselves possessed by some evil spirit, they prick themselves with sharp-pointed bone awls, and imagine that the spirit leaves the body with the outflowing blood. About this custom, Karsten writes: »If the arm fails or trembles in pulling the bow, its weakness is, according to the belief of the Chorotis, due to the presence of a mohsek in the blood and they think that the evil demon will leave the body with the blood drawn. The [751]
scars left by the cuts are kept up with care and shown with satisfaction,

[1] Karsten (4), p. 124, and Grubb (1), p. 72.

[2] Nordenskiöld observed in a Choroti village that *all* the girls had their ears pierced. According to a letter of his, dated 13 May, 1921. Rockelstad collection of manuscripts, volume 1921, letter N.

[3] According to letter referred to in footnote 2.

[a] [should be Choroti. - Analyst]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6
Chiriguano SF10

Ci 304 755 751

almost with pride. *Evidently it is thought that the very scars afterwards act as a sort of charm against the spirits.*»[1]

If scars left by wounds are considered to possess desirable, magical properties, it would easily be supposed that perforations that have been kept open must possess the same properties in a greatly enhanced degree. Among the Chiriguano, neighbours of the Choroti, the actual piercing of the lower lip constituted the most important of the ceremonial acts performed on the boys on their having attained puberty, and among the Chané — whose culture is akin to that of the Chiriguano — not only was the lower lip pierced on this occasion, but the boys were also given other wounds on the body.[2]

Co 881 304 171

Ci 304 789

From what I have adduced above, it will therefore be seen that, according to the belief of the Indians, *the making of punctures or perforations on the body, has in itself magic effects, and, consequently, that these magic effects are not believed to arise with the fixing of some ornamental object of magical character — e. g., a tembeta, or an ear disc — into the perforation.*

Ci 304 789 562

This being so, here, in my opinion, lies the explanation of the fact that Choroti girls sometimes have pierced ear-lobes, although it has never *with certainty* been shown that they ever wear ear discs. On the other hand, from reasons I shall present below, it is *probable* that old Choroti women, with distended ear-lobes, *exceptionally* do wear ear discs.

I myself, as well as other investigators of the Chaco peoples, have seen elderly women among the Choroti with holes in their ears so large that one was forced to suppose that the lobes had been stretched in some way or other. Such stretching, however, may not *necessarily* be due to the wearing of ear blocks, but *may* have been produced by manual manipulation. That, by such means, perfectly monstrous distension of the soft parts of the body can very well be brought about, is proved by, among other things, the practice of the Hottentot women of lengthening out — merely by frequent pulling — the labia minora into an enormous size.[3] A similar stretching of the hole in the ear-lobe might, from the Indians' point of view, have for its object the increasing, proportionately to its size, the magic properties of the hole. Among the Incas, the size

[1] Karsten (4), p. 157. Italics by von Rosen.
[2] Karsten (4), p. 200.
[3] von Luschan (1), p. 378.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

of the hole in the ear-lobe was probably an important matter, a point noticed also by Karsten, who writes on this subject: »Of all marks of honour which they received at this initiation, *the holes* in the ear-lobes were the most important. The Inca himself pierced the ears of the young princes with big golden pins, which afterwards were left in the wounds *in order to make the holes larger.*»[1]

For reasons which here follow, I can, however, quite well imagine that exceptions might be made from the rule that ear discs may not be worn by women. Karsten states his observation that women, as a rule, take no part in religious ceremonies, incantations or dances, but adds: »There are exceptions to this rule, and just as elderly women, who have been properly initiated, may perform certain religious ceremonies of their own, so may they also occasionally take an active part in certain religious dances.»[2]

Bearing in mind the fact that ornaments of magical character have their specific uses at dances and other religious ceremonies, and also that ear blocks, as we have seen, are looked upon by the Choroti Indians as means of protection against evil spirits, I do not find it improbable that *elderly women, who have been initiated in magic ritual, on certain occasions may wish to strengthen their power to resist evil spirits by enlarging, as do the men, the holes in their ear lobes by putting in blocks, or discs.*[3]

Among another Chaco tribe, the Toba Takshik, Dr Lehmann-Nitsche has observed that a certain distinctive attribute, which as a rule is exclusively meant for the one sex, may, in rare and exceptional cases, be assumed by the other. Lehmann-Nitsche tells of a man who had been given the tattooing especially distinguishing women, but points out that this must have been an extremely rare case, seeing that it greatly astonished even the interpreter, and suggests the possibility of the man not being considered an »homme normal».[4] It is noteworthy that the tattooing in question, described and reproduced by Lehmann-Nitsche, is practically identical with a tattooing design that adorned a Choroti *man* (see fig. 66).

[1] Karsten (4), p. 136. Italics by von Rosen.

[2] Karsten (1), p. 2.

[3] Fig. 30 in »Indianlif» (Nordenskiöld (13) shows a redoubtable old Choroti woman, who had executed the tattooing Nordenskiöld had done on himself. This old woman's ear-lobes are enormously distended.

[4] Lehmann-Nitsche (2), pp. 15 and 16.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

These casings are not sewn together, but consist of the seamless skin of the tail or leg of some animal. At first I took it as a matter of course that these casings had been put on solely for the purpose of strengthening the bow at some point where it looked like breaking. In order to make certain, I cut loose a casing of this kind, which was on the bow numbered 03. 3. 253, but I could not discover the least crack, knot, or other defect pointing to any necessity for reinforcing the bow at that point. But, between the casing and the stave, I did find some flattened cakes of excrement from some herbivorous animal. Whether these excrements had *purposely* been placed inside the casing, is of course impossible to say, but if they were put there on purpose, then they undoubtedly possessed some magical significance. In such case the idea must have been that they would bring good luck in the hunting of the species of game whose excrement had been placed inside the casing (see p. 181). As among the Indians there is a very wide-spread notion that whoever possesses the skin of some animal also possesses a certain mastery over the spirit of that animal,[1] it is not impossible that the skin casing itself is of a magic character. Professor Emil Holmgren, who, at my request, kindly carried out a microscopical examination of the excrement flakes as well as of the piece of skin, considers that the character of the latter points to its having been a part of the tail of an animal of the goat, sheep, or *cat* tribe, and that the colour and grouping of the hairs are indicative of the *last-mentioned* category.[2] That parts of animals' bodies are used by the Chaco Indians as hunting amulets, is, among other things, evident from a statement by Nordenskiöld upon the subject of hunting among the Ashluslay, who are neighbours of the Choroti: »In hunting, the Ashluslay make use of various amulets. If, in the always indispensable caraguatá bag, one carries the head of a tortoise, then one is able to stalk close up to the deer, without putting them to flight. When hunting ostriches, it is a good thing to bring along pieces of skin taken from the breast of ostriches which one has killed.«[3] As to the other two bows, I have refrained from cutting off the skin casings, and therefore cannot say whether the latter conceal any cracks or not. On the staves of the bows Nos. 03. 3. 252 there are, however, to be seen, close to the casing, several deep scorings, running

[1] Karsten (6), p. 90.
[2] Opinion dated August 24th, 1921. Rockefeller collection of Manuscripts, Volume 1921, »H».
[3] Nordenskiöld (13), p. 49.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

534 and Yuracáre. Outside the Chaco, and the regions bordering on it, this type of whistle has not, so far, been found.[1] It is noteworthy that, generally speaking, these whistles have been given a similar, very characteristic, ornamentation. It is only such whistles as originate from the Yuracáre that form an exception from this rule.[2] The ornamentation, which is usually carved in the wood, in low relief, consists of a figure more or less [531] resembling a cogwheel, with a wheel-cross in its centre (fig. 166). Such whistles as have a tin mounting are sometimes without the wheel-cross (see fig. 165).

●789 534 531 301 This ornamentation is probably of some magical significance.[3] For the fact is that these disc-shaped whistles are not only a combination of ornament and musical instrument, but they are also put to magical use. Karsten relates that the Choroti Indians, whilst performing their exorcismal dances, now and then blow their disc-shaped whistles to scare off evil spirits.[4]

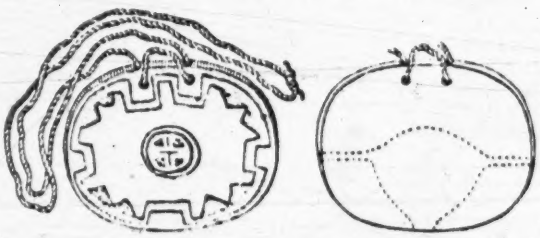

Fig. 166. Disc-shaped, wooden whistle, one side with carved ornaments, the other side plain. Used like the whistle in fig. 165. Choroti. Gran Chaco, Bolivia. ⅓ n. Gothenburg Museum. D. 703. From Nordenskiöld (11), fig. 56.

In a monograph on whistles I have endeavoured to show that the practice of carrying ornamental whistles is of remote antiquity in America, and I think I have adduced very strong evidence of the so called »mesh-spacers» of antler or polished stone, that have been found in graves in North America, being, as a matter of fact, used as ornamental whistles, and possibly of a magical character.[5]

534 The disc-shaped Choroti whistles are blown at the lower aperture (see figs. 165 and 166), and with the same technique in blowing as described in connexion with the description of the flute in fig. 162. By the closing

[1] Nordenskiöld (11), pp. 188 and 189.

[2] Nordenskiöld (11), p. 188.

[3] Of the wheel-cross having been, and still being, also in America the characteristic symbol of the sun, we possess reliable proof. See e. g. Frobenius (1), fig. 398. Cf. also d'Alviella (1), pp. 76 and 77; and Holmes (1), plate XXXVIII.

[4] Karsten (1), pp. 34 and 35.

[5] von Rosen (8), p. 114 et seq. and Gustaver (1).

1: Rosen E-5 (1901-1902) 1924. SK6 Choroti SK6

I never heard the Choroti sing or play any real melody; as I have already pointed out, the musical sense of these Indians appears to be exceedingly rudimentary. But when they are beating their magic drums (fig. 167), or using their magic rattles (fig. 170), one perceives that they are by no means lacking in a sense of rythm.

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Fig. 168. Drumstick, of wood, with a small tinplate mounting. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 394.

The drums as well as the rattles are of a magical character; both are principally used at incantations and magic dances.

The magic drum consists of an earthenware vessel which is partly filled with water, and covered over with a piece of skin. The skin is tied round the mouth of the vessel with a string of caraguata (fig. 167). A single drumstick is always used. Drumsticks are of wood, and usually carved; sometimes they have metal mountings (figs. 168 and 169). When the drum is to be used, it is usually stood on a ring of straw which is placed on the ground.

Drums consisting of clay pots with skin stretched over them have also been in use in North America. According to some early authors, such drums were not beaten with the bare hand, but with a drumstick: thus they were in this respect handled in the same manner as by the Choroti.[1] As to whether the North American drums were also partly filled with water, I am not able to say, as in the literature I have found no information on that point.

In a previous work I have endeavoured to show that, among the Choroti, water was put into the drums for the purpose of tuning them to the pitch that was wanted.[2] This detail of information, which I had from the Choroti themselves, is in all probability correct. Karsten, however, offers a different explanation. He is of opinion that the water is poured into the clay-pot drums exclusively for reasons

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Fig. 169. Drumstick, of wood with ring shaped tin mountings. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 398.

[1] See for example Holmes (1), p. 34 and fig. 4.
[2] von Rosen (2), p. 12.

535 centres on them. It is for them that they paint and deck themselves out.
302 At these balls the young Indian tries to appear as elegantly apparelled, as originally painted and decorated, as possible. Each day he paints himself after a different fashion, and arranges his ornaments differently. — These gentry, upon growing into older, staid, married men, no longer adorn themselves for ball parties, but only for war. — As to the Choroti girls, I have often seen them anointing their bodies with fish oil, which imparts to them an unpleasant smell. Their own opinion on this point is
[832] no doubt a very different one. To their thinking, we Europeans have an offensive cow smell. The level of elegance affected by the men is never
535 attained by the women. Still, they are, however, able to make the consoling reflection that it is, anyhow, in the first place for their sake that the lords of creation spend several hours of the day on their toilet.

»As has been said, it is in dancing that the whole interest of the young men and the young women centres. When the sun has set, then it begins. In a circle, or in a single rank, the men dance, marking the time by singing, may be: 'Tae-a-sa-lé, tae-a-sa-lé'. As the rhythm of the singing is slow or quick, so is the dancing. Music is a thing unknown at these
[533] dances. The chants that are sung are untranslateable refrains, which often are international, i. e., are used by many different tribes. The girls dance behind the men. Among the Choroti Indians it is the girl who takes the
[832] initiative in the matter of amatory ventures. She simply carries off with her, from the ball, any particular young man whom she may want as her lover for the night. These dances made a grand spectacle, as the moon, or a bonfire of pampas grass, shone on the gleaming bodies. I have seen as many as a hundred men form a dancing circle. At times the dance went quite slowly; at times it would go at a breakneck speed, raising clouds of dust, so that all one could see was a whirling melee of bodies and waving ostrich plumes.«

335 Of the dances of the Chaco Indians,[1] those that are obviously magical
789 are mainly performed as ceremonies of exorcism against dreaded spirits who have it in their power to cause illness or death; according to Karsten, magic dances are also resorted to in order to enhance the supply of wild, edible fruits.[2]

[1] Extract from Nordenskiöld (13), pp. 73, 75—77, and 79.
[2] Karsten (1).
[3] Karsten (1), pp. 25–28.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

again until a player has taken all his adversary's »sheep«, when it remains for him to try and takes his arrow too. In this he succeeds if he can make a throw which lands him in the hole where his opponent's arrow happens to be. If he does that after having taken all his opponent's »sheep«, then he has won the game.[1]

The Choroti are enthusiastic chuke players, and as a rule play for stakes. On this game they can stake snail-shell necklaces, woollen mantles and other things, often representing considerable values to the Indians. According to Karsten, the chuke game may also be played for purposes of magic. It is mostly played when there is a dearth of food, for the Indians believe that they are able to make the wild fruit grow in larger quantities by assiduously playing chuke.[2]

Playing with a ball is a much favoured pastime. A ball game resembling hockey is played among the Choroti and several other Chaco tribes. The players divide themselves into two teams, each having its goal to defend. The distance between the goals depends on whether grown-ups or children are going to play, the distance being greater in the case of the former. Each goal is marked by branches stuck into the ground. A wooden ball is thrown into the centre between the goals by an Indian who is not taking part in the match. By means of »hockey« sticks consisting of the leaf-stalks of a palm, grown with a natural bend (fig. 174), or of tree branches, the players then try to drive the ball so that it rolls into the goal that their opponents are defending (fig. 177). As will be seen, this game is played on the same principle as our hockey, by attacking and defending. It was a great pleasure to watch Choroti boys playing hockey, in which their native lissomness was exhibited.

I also saw Choroti children play at ball. Their hand-balls consisted of dry maize leaves tied together in the way seen in fig. 175. They have the appearance of old-time flaming hand grenades, and, whichever way they are thrown, they always fly »ball« foremost and the »fiery tail« pointing backwards or upwards.

The Choroti boys make themselves both long bows and pellet-bows with which they shoot at a mark, or use in play in other ways; they also amuse themselves with a kind of light, two-cord bolas[3] and with little

[1] Cf. Nordenskiöld (11), pp. 163–164, and Karsten (5), pp. 100–102.
[2] Karsten (5), p. 102.
[3] Nordenskiöld (13), fig. 24.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Steinen,[1] Koch-Grünberg[2] and Karsten[3] have made specially thorough research into questions connected with this matter.

From primitive peoples it is, however, exceedingly difficult to obtain thoroughly reliable information. In order to get rid of a tiresome questioner, a negro, or an Indian, will often reply in the way he thinks most pleasing to his interrogator. Information received by means of an interpreter, is not unfrequently unreliable. This explains how statements which are absolutely erroneous have found their way into the works of even the most painstaking ethnographers. Another pitfall consists in drawing hasty conclusions based on analogies. There is this to be remembered; that primitive peoples' process of thinking sometimes runs along lines which deviate entirely from those of civilized man, for which reason conditions which, to us, appear analogous may, to the primitive mind, not necessarily appear as being in any way connected.

Although it has not yet been conclusively proved that all Choroti ornaments are of a magic character, it is nevertheless not improbable that such is the case. About many of the ornamental objects of the Choroti there are thoroughly trustworthy proofs as to their magic character. When from two or more members of a tribe circumstantial and practically identical, accounts of the magic properties of some ornamental object have been obtained, there can, of course, be no hesitation in accepting that the object in question is, by the Indians, regarded as a kind of amulet.

Among the finest of Choroti ornaments possessing a magic character I am inclined to class the frontlets and hair-nets of red woollen fabric (figs. 44, 46 and 47) that the Choroti use on occasions of especial importance. Several Choroti stated to me that these full-dress articles of apparel were worn not only as ornaments, but also as charms against evil spirits, and the same belief prevails among the Lengua as regards *their* ornaments of a corresponding kind (see fig. 42).[4]

That the Choroti regard their ear-lobe discs (see figs. 53—55) as possessing magic properties, I have already stated in connexion with my account of the character of those ornaments (pp. 62—66).

[1] E. g., von den Steinen (2).
[2] E. g., Koch-Grünberg (3).
[3] Karsten (4).
[4] Grubb (1), pp. 70 and 71.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

as a rule a practical one, although the articles might, *apart from that,* be of magic use. In the same way many of our Northern ornamental objects might be attributed with a magical character, although my belief is that, e. g., the »heirloom» silver ornaments of our peasantry were more appreciated because of their decorativeness than for any supposed magic properties of theirs. Naturally, also among us there were then ornaments (e. g., Tor's hammers) whose supernatural-, was more obvious than their decorative, character, and such cases may be considered as typical amulets.

These points of view I also consider applicable when reviewing the ornaments of the Choroti.

For it appears to me that, in the case of the Choroti, a differentiation can be made between typical amulets and ornaments to which magic properties are ascribed.

Objects of the latter kind are always worn in full view; they are usually carefully made or worked, and have, as a rule, a decorative, often startlingly showy, appearance. If one asks a Choroti why he is wearing such an ornament, the answer which one as a rule obtains is merely that it looks well, or that it is useful to wear. Occasionally one may get the reply that the ornament is of use against evil spirits, but in such cases it is my firm opinion that, to the Indians, the object's magic character is of less consequence than its being pretty or making a pompous show.

Such objects as I should like to call typical amulets are exclusively, or mainly, of a magic character. Amulets of this kind are often, although not always, entirely devoid of all pretence to beauty. They not infrequently consist of unworked objects, from nature, such as claws of animals, head-carapaces of armadillos, bits of skin, tufts of hair, and other things. They are often worn so as to be out of sight, say in a bag, or under the clothes. Figs. 183 and 184 represent typical specimens of this kind of amulet. To distinguish between these two groups of objects *only from their appearance*, is, however, quite impossible. It must be remembered that claws, teeth, etc., are capable of being put together and arranged into ornaments which are very attractive from an esthetic point of view, but as the supposed magic power of the claws and teeth ought rather to increase than decrease by being placed in contiguity, ornaments that have been composed in this way would constitute implements in which the magic qualities were valued by their owners far more than the esthetic

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

301 789 That in primitive man there is an instinct for self-ornamentation, I consider cannot be doubted. In children this instinct is found, and it is possibly also traceable among animals.[1]

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Fig. 183. Hunting amulet. A jaguar or puma claw. Choroti, Gran Chaco, Bolivia. 1/1. Riksm. 03. 3. 399.

Fig. 184. Hunting amulet. The carapace of an armadillo's head. Choroti, Gran Chaco, Bolivia. 1/1. Riksm. 03. 3. 400.

000 According to my opinion, flowers and snail shells were certainly used as ornaments by our race long before the dawn of such mental development as made possible the idea of supernatural things. Prior to this, no »magic» properties of any kind were, of course, ascribable to natural objects. The faculty of sensing beauty in a material form is bound to be

[1] Apes and monkeys, in captivity, are sometimes said to try decorating themselves with necklaces, hats, etc. This may, however, result only from a desire to imitate. More remarkable, it seems to me, is that elephants, camels, horses and dogs are said to show evident satisfaction when gaily decked out.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

of older origin that conception of things supernatural, wherefore it follows 060
that purely decorative art must be older that magic art.

In the course of time, ornaments have, from a variety of reasons, become attributed with magical properties, *without having, on that account, necessarily lost their character of being ornaments.*[1] At a still later stage it happens that the supernatural properties that once were ascribed to the objects are considered unimportant, and therefore by degrees fall into oblivion. Probably the Choroti will soon arrive at this stage of development in respect of their ornamental objects, and thus Karsten has rendered a very important service to science by having ›fixed‹, so to speak, this stage of the evolution of Choroti culture, even if he, as is my opinion, at times overshoots the mark by giving undue prominence to the magic side of the question.

Singing, dancing, drum-beating and rattle-shaking are by the Choroti 789
regarded as potent in incantation and exorcism. This is a well known 533
fact, to which I have also referred on pp. 182, 183 in my account of a funeral dance which took place in a Choroti village.[2] That blowing a kind of disc shaped whistle is done for the purpose of driving away evil spirits I have already mentioned (p. 144). As regards the supposed magical character of a game of chance called ›chuke‹, I also beg to refer to what I have said in the foregoing (see p. 155).

A popular belief, which is to be met with practically all over the world, 826
is that the mental and physical force in man is in some supernatural way centred in the hair of his head. As an instance of this, Karsten refers back to the well known legend about Samson, the hero who lost his strength as soon as Delilah had shorn him of his hair. Among us Northeners, as among other European peoples, the belief has also existed

[1] It is, inter alia, from Stolpe's works — e. g. Stolpe (1) — a well known fact that these emingly purely geometrical ornaments of primitive peoples often can be traced to symbolic pictography. But symbolic pictures may, in their turn, have been developed out of geometrical designs. ›Von den Steinen is now of opinion that a whole group of so-called geometrical ornaments have evolved from textile designs, but that they, in being transposed from plaited or woven work to other materials, and carried out in engraving or painting, then embarked upon an independent existence, finally carrying with them a whole series of the most varied pictorial ideas, according to the requirements of the artist's inspiration, and that these latter creations had no essential connexion with the original geometrical designs.‹ The passage within the quotation marks is a summary made by Seler of von den Steinen's opinion as regards certain ornaments. Seler (1), p. 48.

[2] Cf. also Karsten (4), p. 152 (1), pp. 14, 33 and 34 (2), bottom picture in plate following p. 22, and Nordenskiöld (13), pp. 89 91, and 105.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

way, *and by renewed research among the Indians*, that we shall be enabled to obtain a thorough knowledge of their conception of magic blood-letting by means of awls.

In the foregoing I have mentioned that Choroti bow-staves are sometimes provided with a small skin casing, slipped on, and that on opening one of these casings I found that it contained excrements from some herbivorous animal. It is of course impossible to tell with certainty what the motive was for putting on this skin casing (see pp. 88 and 89), but I think it probable that it was put on the bow for some magic reason. It is noteworthy that it contained excrement. The fact of this being so is a circumstance that, in my opinion, especially points to the casing being of a magical character, for, according to the Chaco Indians' way of thinking, certain excrements possess magic properties and are often made use of in casting spells.[1]

All kinds of illnesses are by the Choroti considered to be caused by evil spirits. As yet, however, we know but little of these Indians' conception of the character and curing of different illnesses. Once Nordenskiöld called in medical aid from a medicine man among the Choroti, and this is how he describes the way in which the medicine man set about it:

'On many occasions, in the villages, I have seen the medicine men practising their profession. One day, among the Choroti, when I was feeling a bit seedy, I called one of those gentry to my camp. Giving out that I had a severe pain in the lower part of my chest, I asked him if he cared to cure me. He promised to come to me in the evening. At nightfall he arrived, accompanied by a colleague. They insisted on being left alone with me. Moberg and Andersson were consequently turned out, and sentries were posted so as to prevent anyone unauthorized gaining access to the hut. For a start, they made me strip to the skin, and then lie down. They stroked me with their hands over the chest, the sides of my body and the stomach, and then they spat on me. After that, they set to blowing on me, and then they laid themselves down and sucked hard at my chest, in particular at the spot where I had complained of the pain. After having sucked for a while, they turned away and pretended to vomit. Whatever they vomited up in this way, they did not show me, but, as they squeezed it between their fingers, it looked as if they had been squeezing worms. This performance lasted, I think, the

[1] See, for example, Nordenskiöld (13), pp. 93 and 98.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

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Choroti Indians outside their house.

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The open space in the middle of the Choroti village, with a drum placed to the left.

The woman in the middle has a leather strap tied round the chest as a sort of charm against evil spirits.

2: Karsten E-5 (1911-1913)1932 S17 Mataco

Choroti SK 6

and ornaments, wearing many-coloured mantles, necklaces, ear-tubes, big ostrich plumes on the head, and having the face painted. The men form a circle round the girls with arms interlaced round each others' waists. The dance chiefly consists in jumping with both feet at once and stamping hard upon the ground to the measure of a very noisy but monotonous chant. The ceremony is called *nissammaha aséhne*, »to hurry on the girls». The expression »to hurry on» (*nissammaha*), as we shall find later, is used by the Chaco Indians in many cases where there is a question of magically influencing the course of nature for good and useful ends. Just as the Indians believe they can hurry on or promote the growth of the fruit by influencing the tree spirits and by exorcising the evil demons who are trying to blight them, so they »hurry on» the girls in the sense that by the dancing and chanting the latter are prompted to make a definitive choice of a husband, whereas at the same time evil spirits are kept away from them. Courtship and marriage, it should be noted, are of those numerous critical occasions in human life when malignant supernatural powers are believed to be more than otherwise on the alert to do harm and spoil the good designs of men, and as usual the weaker sex is supposed to be particularly exposed to them. The courting dance *Avúshe* is thus in part held with the intention of keeping off this invisible molestation, so that the girl's choice of a consort for life may take place under good auspices.

A man who is not taken away from the dance by a girl has no possibility of getting either a temporary paramour or a wife. The matter wholly depends on the girls, and there are of course always men who for one reason or another are despised. I sometimes noticed such unfortunate lovers at the Choroti dances. Their experience had led them not to take part in the dances; they were sitting in a hut close by, eagerly shaking the rattle gourd (*pelíte*), as they said, »to hurry on the girls» and thus possibly to have better luck in the future. Since the women are much fewer in number than the men, it is necessary that some men are obliged to remain bachelors all their lives. These men were ridiculed not only by the women but also by their more fortunate brethren. On the other hand, there are no unmarried women, and even widows soon remarry unless they are very old.

The men may try to attract the girls at the dances by their beautiful ostrich plumes, necklaces, and other ornaments, but these means of attraction certainly only play a subordinate part. The Choroti woman evidently expects something more of a man whom she thinks of marrying

2: Karsten E-5 (1911-1913)1932 S17 Mataco S17

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process and the other procreative functions of the woman is realized. The attainment of puberty therefore for the Indian girl certainly means the beginning of her sexual life, but at the same time it means her entrance into a very critical epoch of development, during which she is often — especially at child-birth and during the following menses — exposed to supernatural dangers. Hence the initiation ceremonies at puberty have for their object partly her direct protection against these dangers for the time being, partly her purification once for all from the evils associated with her sexual functions during the years to come or — to express it more plainly — to *harden* her against evil spirits. From this point of view we have to regard all puberty ceremonies of the Indians, even such practices as painting, scarification, and tattooing of the body or face, often undertaken with girls on the attainment of puberty.

In the dances and conjurations performed in honour of girls at puberty it is the women who, contrary to what is generally the rule in religious ceremonies, play the most prominent part. Among the *Choroti* the puberty of girls is celebrated with a magical dance called *Káusima* after the instrument which the women use for it; the instrument is called *káhuis*. The *káhuis* is a dancing-staff, two or three meters in length, made of a light kind of wood or bamboo, which has a bunch of deer's hoofs tied at the top. These rattles produce a hollow sound when the staff is struck on the ground and are supposed to possess a mysterious power to influence the spirits. This power of course must be explained from the fact that to the Choroti the deer is a demoniacal animal. The *káhuis* staff is the only magical instrument used by the Choroti women and it is never handled by the men.

The dance begins at the first new moon after the appearance of the signs of puberty, because the moon is believed to cause and have great influence upon the menstruation of women. It is performed every day until the following new moon, sometimes even still longer. At a *Káusima* dance which I witnessed the arrangement was as follows. The mother of the girl and some other elderly women formed a circle, or rather an elliptic ring, outside the hut where the girl was, each holding her rattling dancing-staff. Close to the ring four medicine-men were sitting at equal distances from one another, holding their rattle gourds (*pelite*). There were besides two more medicine-men standing up, each provided with a drum. During the dance the women moved round ceremoniously with slow, regular steps, chanting loudly and marking time with their rattle staffs which they struck on the ground. The men outside the ring also chanted, shaking

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their rattle gourds, whilst the men provided with drums beat them. The girl in whose honour the dance was held was standing motionless and silent at the entrance of the hut reclining against the wall and had to remain so during the whole ceremony. Sometimes, when towards evening she got tired and was on the point of falling asleep, one of the medicine-men came up to her and shook his rattle close to her face as if to keep her awake. The ceremony began in the afternoon and was continued with short pauses throughout the whole evening until midnight. I was informed that as long as the dance goes on the girl need not be veiled, but as soon as the conjuration is finished for the night she must have her face and her whole body well covered. During the whole period that the dance is performed she is moreover obliged to fast, avoiding fish and meat and living only on some light vegetable food.

I may add that all the men who took part in the ceremony were painted on the face in one way or another. Some of them simply had the face coated red with roucou or black with charcoal, whereas others had X-shaped or other patterns painted on the cheeks. The men's faces are always painted in this way at the conjurations of the Indians, and these paintings have a purely magical significance.

The drinking of algaroba beer also forms part of the magical practices at the feast, but it is strictly limited to the men.

The object of all these ceremonies is to protect the girl against the evil spirits, the *möhsek*, by which she is believed to be particularly attacked during her unclean condition. The spirits try to enter into her through the face — especially through those parts where there is a natural opening of the body, such as the eyes, the ears, the nose, and the mouth — and also through the ventral parts, the consequence being, if they succeed in doing so, that she will fall ill and die, or become supernaturally pregnant and give birth to a monster. It is in this way that the Indians account for the birth of those deformed children which they kill directly after birth. To prevent such frightful accidents the girl's head and body are covered after the conjuration is finished for the night. By means of the dancing, chanting, drumming, etc. the evil demons who take an interest in the girl and swarm about her are conjured and rendered harmless. According to the idea of the Indians she is not only protected for the time being against their attacks, but she will also retain a certain power of resistance against them in the future.

The puberty of a girl is not celebrated in all cases among the Choroti with so many ceremonies as in the case just described, but the

2. Karsten E-5 (1911-1913)1932 S17 Mataco S17
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M 304 inflammation in the face the girl has to fast for some days after the operation.

M 304 751 Tattooing has a purely magical significance, as may be inferred from the fact that the Mataco and the Choroti women regard it particularly as a protection against disease. Analyzing the custom, we can distinguish at least three factors in it, all of which are associated with magical ideas: first, the scarification or bleeding itself; second, the matter (soot, ashes) rubbed into the wounds; and third, the patterns and marks incised which remain when the wounds have healed. Bleeding and scarification are common practices of purely magical significance among all Indians of South America, and as far as the Pilcomayo tribes are concerned I shall have occasion to mention this custom again in a later chapter. The very scars left after such operations are regarded as a protection against evil spirits. Further, that tattooing is done by means of ashes or soot is certainly not an accident. The use of ashes for superstitious purposes is of frequent occurrence among the Indians, the general idea being that ashes are a prophylactic against evil spirits. The custom of mixing ashes or soot with saliva is significant from the same point of view, for magical virtues are commonly ascribed to the saliva.

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C 304 751 789 All women among the Choroti are tattooed in the same way, that is, have the same marks and patterns applied to the face, and no full-grown woman lacks this tribal characteristic. Since tattooing is regarded as a permanent protection against evil spirits and sickness, it is natural that a woman lacking it should be shunned by the men, but it is not a means of attraction or a »decoration» in the common sense of the word.

T 304 184 [302] As to the *T o b a s*, tattooing or the custom of making indelible marks on the body or the face was formerly in vogue among all Toba tribes as among all peoples of the Guaycurú-group; but the Bolivian Tobas of the present day have dropped this custom, contenting themselves with simple body painting. Tattooing among the Tobas seems to have been limited to the female sex, as indeed is the rule among the Chaco tribes. According to d'Orbigny, the Toba girls were tattooed when they attained puberty and became marriageable. Since the custom is no longer practised by the Bolivian Tobas I have not seen how it is done by them. The procedure, however, is the same as among other Chaco tribes, incisions being made in the face and ashes rubbed into the wounds. As appears from the photographs of some Toba women which Dr. Lehmann-Nitsche took in Buenos Aires in 1899 the tattooing practised by the Toba women was exceedingly elaborate and complicated.

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there are several evidences of a nature animism, although as a general rule only such objects and phenomena as especially strike their imagination or with which some remarkable incidents are connected, are incidentally or permanently looked upon as being animated by spirits. There are evil demons in the sky, which among other things cause such strange phenomena as eclipses of the moon, of which the Choroti have the same idea as the Mataco and most other Chaco tribes. Other evil spirits of the sky cause drought, which in the Chaco forms the greatest obstacle to a successful cultivation of the fields. The demons keep the rain back, and the Indians in consequence try, during the dry season, to conjure them by drumming, shaking rattles and chanting so as to compel them to release rain. On the other hand, there are demons operating in the violent thunderstorms, although these are generally accompanied by torrents of rain. The Choroti believe that thunder and the flash of lightning are caused by a great number of *mōhsek* who are rushing through the air and making an onset upon the village. These spirits are more often called *ahuéna*, »the birds», and thunder and lightning are therefore generally called by the Indians simply *ahuéna*, although the proper name in the Choroti language is *süntini*. Every time a burst of thunder is heard, the Indians, sitting in their huts, begin to shout and scream loudly, in order to frighten away the molesting supernatural visitors. There are evil spirits in the violent whirlwinds and sand-storms so common in the Chaco, as well as in the cold south wind, *niük*, which during the dry season sweeps over the plains and produces rheumatism and chills among the natives, badly equipped as they are against cold weather. The warm north wind again, *ükine*, is sent by »good» spirits. Thus the radical contrast between the cold south wind and the warm north wind, both of which are sent by supernatural agents, has been to the Choroti the main reason for making a distinction between two of the four cardinal points.

Spirits, *mōhsek*, are also believed to animate *trees* and *plants* — bad spirits poisonous and harmful plants, good spirits the beneficial and useful ones. The ideas which the Indians entertain about plant spirits and the customs to which they give rise, are substantially the same among all the tribes, and I shall presently give an account of them.

The Choroti also believe in *animal* demons. Thus they share the belief, held by all Indians in tropical and subtropical America, that a jaguar which attacks Indians or appears under unusual circumstances, is a »man-tiger» *i.e.* a man, generally a sorcerer, who has assumed the shape of this beast. Even in his lifetime a sorcerer may incidentally change

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Chapter XIV.

2. Other kinds of conjuration.

From what has been stated above of the social customs of the Chaco Indians, we realize that there is hardly any important event in the life of these natives which is not celebrated with religious or magical ceremonies of some kind. Generally these ceremonies are simple: drumming, the shaking of rattles, dancing and chanting form the main features in all of them. A few words may be said in this connection about the magical instruments, the *drum* and the *rattle*.

The drum, which is called *usyúk* by the Choroti, *huitsyúk* by the Mataco and *kaltaki* by the Tobas, is known to all Pilcomayo tribes, although it is nowadays little used by the Bolivian Tobas. It is a simple instrument, consisting of a small clay pot which is covered with a goat's or deer's skin. In beating the drum only one stick is used. Generally the pot is partly filled with water — a detail which I cannot exactly account for, since it has no perceptible influence upon the tone of the instrument. Probably the water is believed to eke out in some way its magical efficacy. The drum is the principal magical instrument of the Argentine Mataco who use the rattle gourd less, whereas, on the other hand the Choroti, who also use both instruments, seem to appreciate the rattle more. In a Mataco village the drum is at work nearly every day: sometimes the spirit of a dead Indian is frightened away with it, sometimes other evil spirits, disease-spirits, spirits of hurricanes, tempests, drought, etc. are conjured with it; sometimes the Indians try to influence the good spirits animating trees and plants with it, so as to effect an abundant harvest of algaroba and chañar. The Choroti again mainly use the drum during the algaroba season, when the instrument is beaten both day and night. In a Choroti village where I lived for several months, an Indian sorcerer was specially engaged for this important ceremony.

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The object of the drumming was to »hurry on» the ripening of the algaroba and the chañar fruits, and at the same time to frighten away the evil spirits of hurricanes and tempests which frequently blight these trees at the time when they are flowering. Drought is another great danger to a rich algaroba and chañar harvest. By means of drumming the demons, who cause drought by keeping rain back, are conjured. In some cases it seems as if the drumming Indian, by the very time in which he is beating his drum, were imitating the fall of the rain-drops. The Choroti drummer seldom wears the rattle-belt (*tahús*), which on the other hand seems to be regarded as indispensable by the Mataco drummer. The latter, when he is beating the drum, continually moves his body up and down and from one side to the other in order that the rattle which he wears round the waist may make a noise.

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The other of the two principal magical instruments of the Chaco Indians is the rattle gourd, called *poketá* by the Tobas, *votsotáh* by the Mataco, and *pelīte* by the Choroti. It consists of a round or oval bottle-gourd, hollowed out through a small opening in the tapering stem, and then filled with dry seeds, generally of tusca, small shells, beads, or other things producing a rattling sound. The outside is often ornamented with lines, triangles, squares, or other geometric designs. The instrument, when shaken, is believed to have a remarkable »power», which is partly due to the magical properties of the gourd itself, partly to the seeds or other things with which it is filled, partly to the geometric figures with which the outside of the gourd is ornamented. The instrument is used much on the same occasions and for the same purposes as the drum. I have stated, however, that the *Choroti* not only use the *pelīte* to frighten away or conjure evil spirits in general, but also for certain positive ends. To shake the rattle is in the Choroti language called *nekeālitse*; when it is shaken for a special purpose they use the expression *nekeālitse sīmā*, which means more or less: »to shake the rattle to obtain something». Thus I have mentioned that during the marriage and courtship dances such young men as are despised by the girls are in the habit of shaking their rattles in order to »hurry on» the latter and to have greater success in love. Similarly, when a young man goes out to find a bride in connection with the dances, his father at home continually shakes the rattle to »hurry on» the girls on behalf of his son and promote his important undertaking. There are many other instances of the same kind. When the Choroti women go out in the forest in the morning to collect algaroba beans for the brewing of the sacred beer or other wild

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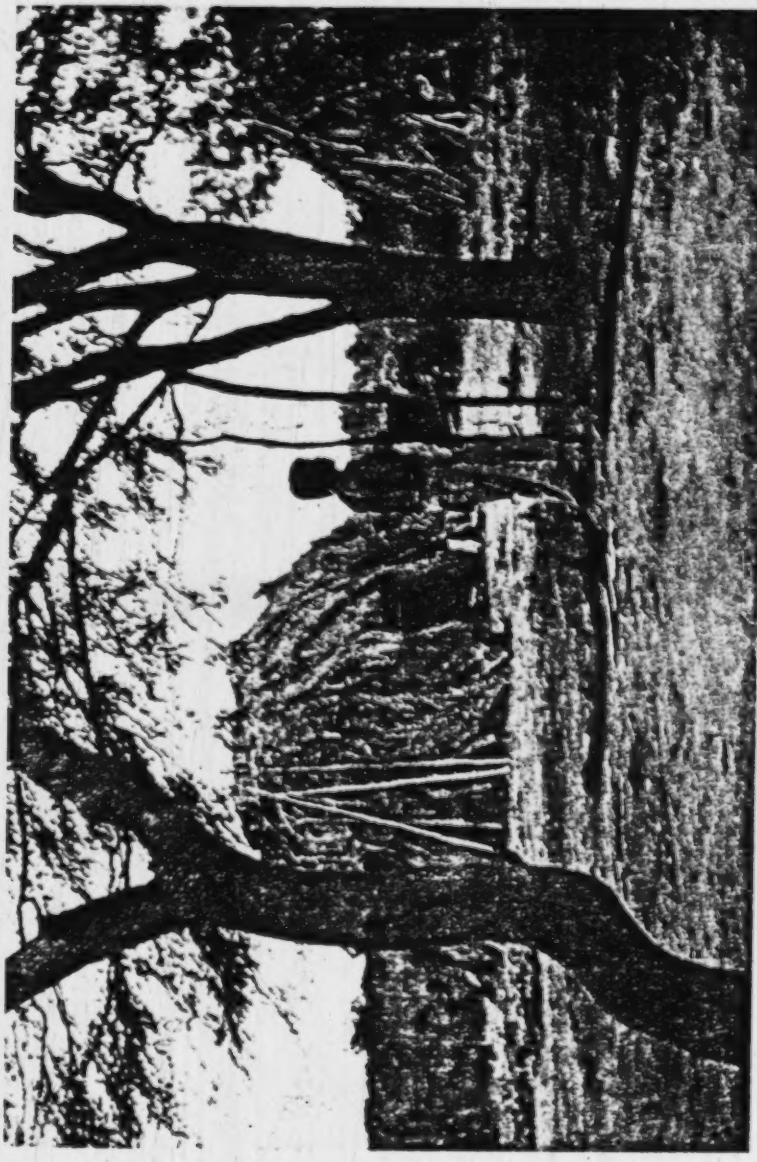

The ceremony *Kau'nagnik* among the Choroti. During the algaroba season the drum is beaten day and night with a view to shurrying one the ripening of the fruits.

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fruits, their husbands at home shake their rattles the whole day in the belief that the rattling will help them to find and to collect great quantities of the important fruit. »Very soon will the woman be back with much algaroba». In the same way good luck is secured for a fishing expedition. Whereas the younger men go out to the river with their nets, the old men stay at home and »hurry on» the fish on their behalf by vigorously shaking their rattles.

It is difficult to make out exactly the train of thought underlying this curious custom. One might think that the Indians mean to frighten away, by their rattles, the evil spirits which impede success in an important enterprise, and in part it is no doubt so; but the chief idea seems to be another. The very movements, together with the »power» emanating from the magical instrument, are evidently believed to exert a direct, mysterious influence upon natural processes and even upon human thoughts and feelings. In other words, the effects seem to follow mainly on the principles of sympathetic magic. The same ideas, as we shall presently find, underlie the Indian dances in many cases.

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The *Tobas* call the ceremony of shaking the rattle gourd *poketá danyakkó*. It is the general way of expelling evil demons which move about at night, causing sickness, tempests, thunder-storms, etc. Conjurations directed against evil spirits operating in destructive hurricanes and tempests are particularly frequent. Since these usually begin at night, conjurations with the rattle gourd always take place at that time. One of the medicine-men places himself outside the houses and chants a monotonous chant accompanying himself with the rattle. In these chants as usual, no words are pronounced; they merely consist in the repeating of sounds like a—a—a—a . . . ha-ha-ha-ha, etc. The power lies in the voice itself. The chant is always begun in a loud voice which is heard far away; then the voice gradually dies down so that the last tones are only perceived as a low mumbling; finally one can only hear the dull sound of the rattle which the sorcerer goes on shaking uninterruptedly. After a while he starts again from the beginning in the same way as before, and so forth. This conjuration is not seldom continued with a prayer addressed to the »good spirit».

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Various important incidents in the social life of the Tobas, such as the birth of a child, the initiation of young girls at the time of puberty, and deaths, are celebrated with *poketá danyakkó* conjurations. The most important occasion on which the rattle and the drum are used is, however, among all tribes *the preparation of fermented drinks*.

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taking part in them, evidently with a view to propagating the useful plant spirits and giving them an opportunity to enter into the women and to be reborn in human form.[1])

I believe that in the Choroti dances performed during the algaroba season and the sexual licentiousness which forms part of them we have in fact remains of similar mysteries in the Chaco, which for one reason or another have partly lost their original significance, having now at the outset only the general character of joyful harvest festivals.

Again, the great festival dance of the Tobas is the *Nomi* already mentioned. It is performed on all particularly solemn occasions, but especially during the algaroba season. It is the great »carnival» dance of the Tobas. Even some time before the proper season begins the Indians start to dance, believing that by dancing they can accelerate the ripening of the fruits (*niapilák map*), just as the Mataco and the Choroti believe that they can hurry on the ripening of the fruits and the coming of the season by beating drums. In dancing the Indians arrange themselves in a long line, or so as to form a crescent. With arms interlaced round each other's waists they move, running alternately to the right and to the left and at the same time forwards to the other end of the dancing place where the chain is broken. Thereupon they move back in the same way. As is customary in the Chaco, the dancers themselves chant the measure of their steps in a loud voice. Similarly the women do not take part in the dance although they are allowed to be present as onlookers. — During the season the dance goes on daily and is believed to influence continually the growth of the fruits.

But the *Nomi* dance is performed during the algaroba season with another object in view also. The Tobas believe that at this happy and joyful time they receive invisible guests in great numbers. These are the *kadepakál* or *ilúh*, i.e. the spirits of departed Toba Indians, who also want to be present at the joyful festivals and to take part in the drinking-bouts. But these guests, who are feared or at any rate awake uncanny feelings in the living, are not welcome and do not receive any sort of cult. On the contrary, measures are taken to keep them off, and the Indians told me that precisely this is part of the object of the dance *Nomi*. The dancing men by means of their movements and their loud chanting prevent the spirits of the dead from approaching the villages or the place where the drinking and feasting goes on.

[1]) See my *Civilization of the South American Indians*, pp. 427 sqq.

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sible. I may add here that the Choroti men are in the habit of wearing round their neck a kind of flat whistle made of wood and ornamented with incised figures. With these whistles they produce shrill sounds from time to time during the dances, which are supposed to imitate the sounds of the spirits and have the power of frightening them away.

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How the Indians believe themselves to be able to influence even natural processes by imitating them, appears in an interesting way from the following curious ceremony which I witnessed among the Choroti. These Indians cultivate the maize only on a very limited scale, and it is among them a rare cereal. In a village the women had obtained some maize and were cooking it on the open place outside the huts. While the maize pots were boiling, the women sang in a loud, quavering, guttural voice, which it is impossible to describe exactly, an extremely monotonous chant, which was evidently meant to imitate the monotonous sound and the regular, bubbling movements of the water boiling in the pot. The women explained to me that *in this way the pot would boil well and the maize soon become soft.* The chanting was thus a means of »hurrying on» a natural process according to the same magical principles as we have noticed in several other cases.

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The *ear-tubes* which are worn as ornaments for instance by the Choroti. Ashluslay and Toba-Pilagá and which consist of wooden plugs or pieces of cane, sometimes of tremendous size, are likewise nothing but magical charms or amulets. This was clearly indicated by the Choroti, who told me that the ear-discs are worn to prevent the evil spirits, the *möhsek*, from penetrating into the ears. Their hugeness and peculiarity is evidently thought to act as a deterrent upon the spirits, and there seems to be the idea that the larger they are the more efficacious.

The Indians of the Pilcomayo use various kinds of *necklaces*, and it seems to be the rule that among the most primitive tribes, such as the Choroti and Ashluslay, they are more worn by men than by women, among the more civilized Tobas again more by women than by men. Speaking of the dress of the Choroti, I mentioned the large and costly kind of necklace consisting of snail's shells elaborately fashioned into small round buttons with a hole drilled in the centre and closely strung together. The necklace, called *lähslehuésle* in the Choroti language, is not only an ornament but at the same time a magical charm. The Choroti no doubt gave me the true explanation of their original significance when they told me that the necklace is a protection against sickness. The evil spirits, according to the idea of these Indians, preferably attach themselves to the throat or the chest, because catarrhs are very common in the Chaco during the dry season. The spirits are believed to enter into the body through the throat or the breast, but this is prevented by the protecting necklace. Hence, when a Choroti Indian sells his necklace or leaves off wearing it, his comrades say that he will most certainly soon fall ill. The same idea I found prevailing among the Mataco-Nocténes of Bolivia, where such ornaments are worn by both sexes. Thus the son of a chief, who was just at the age of puberty, one day appeared painted red in the face with *urucú*, and with a large necklace which covered the neck and the breast. When I asked the father why his son had put on these things, he answered: »It is in order that he may not fall ill». Both among the Mataco and the Choroti it is customary that children of both sexes go totally naked up to the age of eight to ten years, but nearly always they wear collars and facial paintings which most certainly are not »ornaments» in the civilized sense of the word.

Among the South American Indians in general it is a common custom to tie round a limb, for instance the wrist or the leg, a leather strap or some other kind of band, professedly with a view to making the arm or the leg strong. The Chaco Indians also commonly wear such ligatures

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number 3. He repeats his throw and throws for instance, 1 (*shuke*). Then he puts his arrow into number 4, and so forth. A continues until he throws 0, whereupon B begins and continues until he throws 0. B thenstarts from his »house» number 23, proceeding backwards. If a player passes the »river» (12) and enters a hole occupied by his opponent, he is entitled to throw out his opponent's »sheep». The object of the game is at first to throw out all the »sheep» of the opponent, the player passing from one end of the series of grooves to the other and back again. If a player succeeds in placing his marker (arrow) in a groove where his opponent happens to have his own marker, the latter is »killed» (thrown out) and has to start again from the beginning. Every player tries to throw out all the »sheep» of his opponent and at last his marker also. If he succeeds in doing so he has won. If someone during the game arrives at the »river» (*tauk*), he is »drowned», and if by the following throw he does not succeed in getting out, (that is, if he throws 0), he is obliged to go back to that groove situated nearest to his »house» where he has still a »sheep».

Gambling is always connected with the *shuke* game, and the stakes lost — whether it be a collar, a shirt, a pair of trousers or some other valuable object — are always scrupulously paid as real debts of honour. This is no doubt in part due to the fact, that the *shuke* game is not a hazard game in the ordinary sense of the word, but has a ceremonial significance. If the debts were not scrupulously paid, the game would fail to produce the effect which the Indians expect of it, namely, the increase of the edible fruits of the forest.

What struck me particularly with regard to the *shuke* game was the fact that, at any rate among the Choroti Indians, it is only played at a certain time of the year, more strictly speaking, in the month of March, when the rainy season on the Chaco ends and the dry season or »winter» begins. Then everyone began upon it at once. In all villages *shuke*-dice were carved and the game went on every day for many hours, sometimes from early morning till late in the evening. This very fact seemed to me to indicate that certain mysterious ideas were connected with the game. Besides, the game was played in a strikingly intensive, almost nervous tempo and the results of every cast — *tauva*, shuke, *kima* — were always shouted out in a very loud voice, which could be heard far away.

The Chorotis expressly declared to me that the *shuke* game is played only at the beginning of the »winter», when the algaroba (*Prosopis alba*) and other edible fruits of the forest grow scarce. At that time a period begins for the Chaco Indians when they usually have to struggle very

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hard for existence». Now the game is supposed to have the effect of *increasing the fruit and making the Indians rich*. This is made possible by virtue of the fact that *among the Indians there is always someone who wins*», from whose luck all will benefit. The Indians believe that just as they can influence the course of nature, »hurry on» the growth of the crops, by beating drums, dancing, and shaking rattles, so they believe that at this critical period they can enhance the vegetative power of the useful trees and prevent starving by playing *shuke*. It seems to me probable that in this game the magical effects are produced merely by the procedure of playing — by the feverish pace at which the game goes on, and so forth — just as technique and the very rhythm play an essential part in such magical ceremonies as dancing and the beating of drums.

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That the *shuke* game, so far as its principal features are concerned, has been borrowed by the Choroti from the mountain Indians, as has been suggested even by Nordenskiöld, is a matter beyond doubt and may be inferred from the playing terms themselves which are of Quichua origin (*shuke* = *chunca*, *tawra*, and probably *kima*). On the other hand, it is certain that the Incas never had an exactly similar game, and Nordenskiöld's imagination carries him too far when he tries to show that certain objects, found in archeological excavations on the mountain area of Ecuador, are nothing but counting-boards which have been used for a game more or less identical with the *shuke*. [1] Nordenskiöld's curious idea of connecting the said mysterious objects with the *shuke* game of the Chaco Indians entirely loses its importance in the face of the fact that, as I have shown elsewhere [2], the ancient Peruvian and Ecuadorian Indians had several »games of chance», none of which bore the slightest resemblance to the Chaco game just mentioned. The map published by the same ethnographer, showing the supposed distribution of »games of chance» in South America, was therefore decidedly prematurely drawn. [3] The particular character of the Chaco game has obviously, in

[1] See his article »Spieltische aus Peru und Ecuador», in *Zeitschrift für Ethnologie*, Heft 2 u. 3, 1918, p. 169.

[2] See my *Ceremonial Games of the South American Indians* (*Societas Scientiarum Fennica. Commentationes humanarum litterarum*. Helsingfors, 1930).

[3] Whereas Nordenskiöld erroneously assigns the neighbourhood of Quito in Ecuador as a region where a game like the *shuke* has been practised, he knows nothing of the games of chance I have myself discovered later in that country: the *huairu* game practised in the southern and eastern mountain regions, the *huairitu* and *singu* in vogue among the forest Indians on the rivers Bobonaza and Pastaza.

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I have so far only spoken of the dances and other rites which take place at the preparation of the sacred drinks. During the algaroba season festivals are held almost continuously, and these festivals are chiefly celebrated with drinking-bouts and dancing. Those of the Chaco Indians who have been in contact with the whites and seen the great festival with which, in Argentine and Boliva, they celebrate their carnival in February say that the algaroba season is their own carnival time and that they, too, have their carnival dances. The dances which among the Choroti take place at that time have partly been described before in connection with the customs practised by these Indians at courtship and marriage. In addition to the customary courtship dance *Avúshe*, the great festival, which is called *lākinene*, is celebrated with two more dances, those called *Ahlénta* and *Jóhlōki*. *Jóhlōki* is the name by which the Choroti call the Tobas, a fact that seems to indicate that the Choroti have borrowed the dance from their neighbours. The Tobas themselves call the dance *Nahotti*. It is a ring-dance; the dancing men are arranged in a circle and have their arms round each other's waists, moving round to the right or to the left to the rhythm of a chant. The *Ahlénta* again is identical with the Toba dance *Nomi*. Nevertheless, the Choroti seem to have borrowed it from their southern neighbours, the Ashluslay Indians on the lower Pilcomayo, a fact that may be inferred from the name; for just as *Jóhlōki* means »the Toba dance», so *Ahlénta* means »the Ashluslay dance» (Choroti *Ahle* = Ashluslay). I would add in this connection that the dances of the Chaco tribes are, in the main, common to all the tribes; there are certain dances which occur among different tribes under different names.

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The chants sung at the dances are rather monotonous and are composed of a series of words which apparently have no meaning; for instance in the *Jóhlōki*:

Hä-e-sa-alia.
Hiáh-hia-ália.
He-éh-hia-ália. hia-ália,
Hi-áh.
Hä-he-éh. hä-he-éh.
Hä-se-éh. hä-se-éh. hä-se-éh. etc.

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Only the younger unmarried men perform these dances, the older ones being constantly engaged in drinking algaroba beer (*ätäs*). Unmarried girls are allowed to be present, but as we have seen they do not as a rule

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK 6

take part in the dances, although courtship is connected with them. After the dances sexual intercourse is indulged in by the partakers in the festival, each girl choosing for herself a lover for that night among the dancing men.

Nordenskiöld mentions the Choroti as an instance of Indians who have purely profane dances, pointing out that they have special reference to the sexual life. The latter of course is true of some dances; but Nordenskiöld's mistake in regarding the Choroti dances as purely profane is due to the fact that he did not study their customs thoroughly and therefore failed to see the ideas underlying them. In fact, it is clear that the Choroti dances are gradually losing their original magical or religious significance and have a tendency to degenerate into mere amusements, a course of development which we frequently notice with regard to Indian customs. But even the Choroti dances still, in the main, retain their ceremonial character. Thus my Indian informant, an elderly man, told me that when the Indians dance they collect the whole supply of fruit gathered for the occasion in the house of an old man, i.e. a man initiated in the magic art; and *they believe that the dancing will make the fruit abundant* — not only these particular fruits, but those growing in the forest as well. The principle is again the same as in the Mataco dance to promote the growth of the sugar cane and in the Toba dance to make the chañar fruit abundant. As we have seen, the drumming, practised by the Choroti and the Mataco during the »season», has to a certain extent a similar object. That the chanting which accompanies the dances has at the same time for its object to frighten away evil spirits, is evident.

From this point of view it is interesting to compare the ceremonies performed by the Choroti during the »season» and the sexual liberty connected with them with certain »mysteries» of a similar kind practised by some Indian tribes in other parts of South America. Thus the Yurupary ceremonies of the Uaupes Indians in north-western South America present a close analogy to them. Among these tribes also certain mysterious ceremonies, consisting chiefly in dancing, are performed at those seasons of the year when the most important fruits reach maturity. The object of these ceremonies appears to be to influence the spirits which are thought to animate the plants and thus to promote fertility. Many facts show that these spirits are nothing but souls of the dead which have taken up their abode in the trees and plants. Moreover, at these mysteries sexual intercourse is promiscuously indulged in by those

Mataco SI7
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M /320 cont./

771 They have a vague idea of superior beings, whom they fear
776 without worshiping them; the cleverest one becomes the sorcerer
756 and exploits the poverty of his companions, especially today when
648 they are earning money from the whites, to whom they lend im-
464 portant services.

M They frequently move from the region that they occupy to
169 the Argentine Republic; they work, dress, learn some Spanish
177 and a slight smattering of civilization, and return to their lands to live as before.

Choroti

Ci
131 The zone located southeast of Toba territory is occupied
197 by the Choroti Indians, who have their own language. They occupy the geographic degree 22° 30' latitude and 64° 10' longitude, on the left bank of the Pilcomayo River.

Ci They are quite numerous and peaceful, and they are not
181 treacherous like their neighbors, the Toba. Nevertheless, they
648 inspire respect in all the neighboring tribes; if a mission were to be established at said degree, the conquest of all the Bolivian territory /321/ up to 24° would be accomplished without the need of so many small forts, which are such a great expense to the Nation and which do not create centers of trade and civilization.

Ci Father Gianelli in years past visited the Choroti Indians,
●797 was received with displays of affection and appreciation, and
177 found among them good inclinations toward becoming civilized, but at that time the harvest was too much for so few evangelical workers.

Ci The Choroti are not so lazy and savage as the other tribes;
181 they devote themselves to the cultivation of a few seeds and to
241 the raising of cattle, although on a small scale. They are also
231 hunters, however, and when they occupy the banks of the
224 Pilcomayo, they take advantage of the fruits the river brings them, especially in the great floods.

142 The skin colour in adult Choroti is brown, newly born children have light yellowish-brown skin, but it soon gets darker, so that even rather young children, figs. 21 and 22, seem to be of a very dark colour. The hair is lank, and the iris dark brown. From Lehmann-Nitsche's and my own anthropological observations I have compiled the following table.

The Choroti: some physical features.

[141]

Sex	Average height, cm	Shape of skull	Skin colour, von Luschan's scale	Hair colour, Fischer's scale	Iris, Martin's scale
Men	[1] 161.6 [2] 170.0	Dolichocephalic, predominantly	22, predominantly	4, predominantly	4, predominantly
Women ...	[3] 153.3 [4] 152.0	Dolichocephalic, predominantly	18, predominantly	4, predominantly	4, predominantly

145 [805] As the Choroti do not keep count of the age of their children, nor of their own, it is impossible to obtain, by direct questioning, from these Indians any information as to the relation of puberty to age in individuals. One of our Creole servants, who had lived a long time on the Chaco, has, however, told me that Indian children arrive early at physical [582] development (fig. 24), and that the girls are considered marriageable after their first menstruation, which, according to my informant, occurs at the age of ten to twelve. And, according to the same person's statement, the boys are ripe for marrying at the age of about fifteen. The blossoming-time of the women is very brief, and as they grow old they often become repulsively ugly. It is notable that the old women, as a rule, were thin of body, whilst elderly men often were inclined to stoutness.

[621] 361 The Choroti live together in villages. The selection of the village site depends primarily on the supply of water and food, and, in the case of cattle-owning Indians, also on grazing conditions. Often the huts are built alongside shade-giving trees (fig. 25). The fan palm found in the [824] Chaco (Copernicia australis), (fig. 10) being valuable to the Indians on account of its easily worked wood, its pith (used for food), and its leaves

[1] Acc. to Lehmann-Nitsche's measurements of 30 individuals.
[2] » » the Author's » 10 »
[3] » » Lehmann-Nitsche's » 10 »
[4] » » the Author's » 13 »

[text continues on p. 37]

2: Karsten E-5 (1911-1913)1932 S17 Mataco S17

process and the other procreative functions of the woman is realized. The attainment of puberty therefore for the Indian girl certainly means the beginning of her sexual life, but at the same time it means her entrance into a very critical epoch of development, during which she is often — especially at child-birth and during the following menses — exposed to supernatural dangers. Hence the initiation ceremonies at puberty have for their object partly her direct protection against these dangers for the time being, partly her purification once for all from the evils associated with her sexual functions during the years to come or — to express it more plainly — to *harden* her against evil spirits. From this point of view we have to regard all puberty ceremonies of the Indians, even such practices as painting, scarification, and tattooing of the body or face, often undertaken with girls on the attainment of puberty.

In the dances and conjurations performed in honour of girls at puberty it is the women who, contrary to what is generally the rule in religious ceremonies, play the most prominent part. Among the *Choroti* the puberty of girls is celebrated with a magical dance called *Káusima* after the instrument which the women use for it; the instrument is called *káhuis*. The *káhuis* is a dancing-staff, two or three meters in length, made of a light kind of wood or bamboo, which has a bunch of deer's hoofs tied at the top. These rattles produce a hollow sound when the staff is struck on the ground and are supposed to possess a mysterious power to influence the spirits. This power of course must be explained from the fact that to the Choroti the deer is a demoniacal animal. The *káhuis* staff is the only magical instrument used by the Choroti women and it is never handled by the men.

The dance begins at the first new moon after the appearance of the signs of puberty, because the moon is believed to cause and have great influence upon the menstruation of women. It is performed every day until the following new moon, sometimes even still longer. At a *Káusima* dance which I witnessed the arrangement was as follows. The mother of the girl and some other elderly women formed a circle, or rather an elliptic ring, outside the hut where the girl was, each holding her rattling dancing staff. Close to the ring four medicine-men were sitting at equal distances from one another, holding their rattle gourds (*pelíte*). There were besides two more medicine-men standing up, each provided with a drum. During the dance the women moved round ceremoniously with slow, regular steps, chanting loudly and marking time with their rattle staffs which they struck on the ground. The men outside the ring also chanted, shaking

2: Karsten E-5 (1911-1913)1932 S17 Mataco

Choroti SK6

there are several evidences of a nature animism, although as a general rule only such objects and phenomena as especially strike their imagination or with which some remarkable incidents are connected, are incidentally or permanently looked upon as being animated by spirits. There are evil demons in the sky, which among other things cause such strange phenomena as eclipses of the moon, of which the Choroti have the same idea as the Mataco and most other Chaco tribes. Other evil spirits of the sky cause drought, which in the Chaco forms the greatest obstacle to a successful cultivation of the fields. The demons keep the rain back, and the Indians in consequence try, during the dry season, to conjure them by drumming, shaking rattles and chanting so as to compel them to release rain. On the other hand, there are demons operating in the violent thunderstorms, although these are generally accompanied by torrents of rain. The Choroti believe that thunder and the flash of lightning are caused by a great number of *mōhsek* who are rushing through the air and making an onset upon the village. These spirits are more often called *ahuéna*, »the birds», and thunder and lightning are therefore generally called by the Indians simply *ahuéna*, although the proper name in the Choroti language is *sūntini*. Every time a burst of thunder is heard, the Indians, sitting in their huts, begin to shout and scream loudly, in order to frighten away the molesting supernatural visitors. There are evil spirits in the violent whirlwinds and sand-storms so common in the Chaco, as well as in the cold south wind, *niūk*, which during the dry season sweeps over the plains and produces rheumatism and chills among the natives, badly equipped as they are against cold weather. The warm north wind again, *ūkine*, is sent by »good» spirits. Thus the radical contrast between the cold south wind and the warm north wind, both of which are sent by supernatural agents, has been to the Choroti the main reason for making a distinction between two of the four cardinal points.

Spirits, *mōhsek*, are also believed to animate *trees* and *plants* — bad spirits poisonous and harmful plants, good spirits the beneficial and useful ones. The ideas which the Indians entertain about plant spirits and the customs to which they give rise, are substantially the same among all the tribes, and I shall presently give an account of them.

The Choroti also believe in *animal* demons. Thus they share the belief, held by all Indians in tropical and subtropical America, that a jaguar which attacks Indians or appears under unusual circumstances, is a »man-tiger» *i.e.* a man, generally a sorcerer, who has assumed the shape of this beast. Even in his lifetime a sorcerer may incidentally change

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI12
Choroti SK6

M I C 273 462 415

We have already seen that the most appreciated of these drinks is algaroba beer, which by the Mataco and the Choroti is called *atäs*, by the Tobas again *maplyi*. The tree itself and its fruit is called *oáh* in the Mataco and the Choroti language, in the Toba language *map*. The sacred beer is prepared with the utmost care and with certain religious or magical ceremonies. At this preparation there appears a strict division of labour between men and women. Although the women are not allowed to drink of the beer, they seemingly perform the larger part of the work. They collect the fruit in the forest, carrying it home in their large caraguatá bags, and afterwards mash it in mortars. Some old women start to chew the fruit, mixing it well with saliva, whereupon they spit it out into a goat's hide, fixed in the ground by means of sticks in such a way that it forms a sort of vessel. The goat's hide is used by the Choroti and by the Argentine Mataco, whereas the Tobas and the Bolivian Mataco use a wooden trough for the purpose. Lastly, hot water is poured over the mashed fruit.

M I C 273 [462]

These preparations require nearly a whole day. The most essential thing still remains, namely the fermentation, and to effect this is a duty solely incumbent on the men, since women as a rule do not take part in conjurations. The fermentation is sacred, because it means the birth of the good spirit. Now this happens in the night, but night is the time when evil spirits move about. According to the belief of the Indians, the invisible persecutors appear in great numbers in order to prevent the birth of the good spirit and interfere with the drink so that it cannot ferment and is entirely spoiled. Therefore special precautions must be taken for the critical time. The brewing of the algaroba beer for the great festivals during the algaroba season is — especially among the primitive Choroti — a matter that concerns the whole community. Hence, at the approach of night, the men arrive from all houses with their rattle gourds, sit round the hide or trough and begin to chant a noisy, monotonous song without words, shaking the rattles in the rhythm of their chant. This ceremony is called by the Choroti *nissammaha oáh*, by the Tobas *niapläk map*, and its most conspicuous object is to prevent the spirits from spoiling the beer. Since the new moon is believed to promote fermentation, a moonlight night is preferably chosen for the ceremony. The chant is typical of the Indian conjurations in the Chaco. It is always begun in a loud voice; then the voice gradually dies down, so that the last tones are only heard as a low and distant muttering. Thereupon they start again from the beginning, and so forth. In addi-

M T O [821]

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

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2: Karsten E-5 (1911-1913)1932 S17 Matacc

Choroti SK 6

776 754 825 himself into a jaguar and, appearing in this disguise, kill people. Similarly, an evil wizard is believed to be able to send his soul into a horse, in which shape he will kill the person whom he wishes to bewitch. The horse in fact is the particular shape in which the tutelary spirit of a sorcerer is believed to appear, and is therefore looked upon as a demoniacal animal. Of other animals which are looked upon with superstitious fear the deer must be especially mentioned. This shy and innocent animal is regarded as an evil spirit, a *möhsek*, and its flesh is never eaten by the Choroti. On this point these Indians share a belief which, curiously enough, is met with among many tribes in different parts of South America. In the noiseless movements of this animal and the mysterious rapidity with which it disappears into the forest there is in fact something »ghost-like», which is apt to awaken superstitious awe in primitive minds.

754 825 Just as a sorcerer is supposed to be able to change himself into a jaguar when he wishes to harm other people, so he is also believed occasionally to assume, for the same purpose, the shape of a venomous reptile, for instance that of a rattlesnake. The bite of a venomous snake is generally attributed to the mysterious operation of an evil wizard.

776 823 Of spirits inhabiting what we should call inanimate objects the spirits of the *stones* are of particular interest. In order to understand the ideas which the Choroti entertain in this respect it should be borne in mind that in the interior parts of the Gran Chaco, and particularly in the country inhabited by the Choroti, stones are extremely rare or almost unobtainable. It is in part due to this fact that the Choroti regard stones and pebbles in general with superstitious dread and would never, for instance, put on a necklace in which a stone of some kind entered as a decoration. The reason which they gave me for this aversion was that an evil spirit, a *möhsek*, dwells in the small stone and would infallibly invade the person who hung it on himself. The explanation was, moreover, added, that when a sorcerer bewitches an Indian he avails himself of a pebble-stone which he throws against his victim making him fall ill and [755] die. Similarly, when the medicine-man cures the patient, he extracts the disease-demon in the form of a small stone. In other words, stones are shunned because they form one of the magic arrows which the sorcerers use to kill or harm their enemies.

753 The theory which the Choroti have formed about *sickness* and *disease* has appeared from some of the above statements. Sickness, like epidemic disease, is always due to supernatural operation. It is caused by a demon, a *möhsek*, directed by a human sorcerer. Wizards cause sickness by

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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[621] 361 The Choroti live together in villages. The selection of the village site depends primarily on the supply of water and food, and, in the case of cattle owning Indians, also on grazing conditions. Often the huts are built alongside shade-giving trees (fig. 25). The fan palm found in the [824] Chaco (Copernicia australis), (fig. 10,) being valuable to the Indians on account of its easily worked wood, its pith (used for food), and its leaves

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[2] » » the Author's » 10 »
[3] » » Lehmann-Nitsche's » 10 »
[4] » » the Author's » 13 »

[text continues on p. 37]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

(material for roofing huts), the Indians are apt to build their villages in the proximity of some grove, or forest, of palms (»palmar»). As a case in instance, the Choroti village at Tatarenda was situated quite close to a palm grove, and not very far from a largish palm forest. It is of importance that algaroba trees should be growing in the neighbourhood, as the fruit of this tree plays a prominent part in the food arrangements of these Indians.

The huts are of a very primitive character, and are built in the following manner; With a digging-stick (fig. 27) of hard, heavy wood, a succession of holes is dug, or jabbed, in the ground, so as to form a circle with a diameter of 2 metres or upwards. In each of these holes is planted an unlopped, bent-grown branch, thick end downwards, so that the tips of the branch point towards the centre of the circle. By this means a cupola-shaped frame is formed (fig. 26). This frame is covered with a thick layer of palm leaves and grass (figs. 16, 25), unless palm leaves are difficult to obtain, when the hut will be covered with grass only, although huts thatched in this way have less rain resistance. But even the most carefully built Choroti huts are, however, poor enough dwellings which, in any heavy downpour of rain, are unable to keep those inside them from a wetting.

Fig. 18. A man holding a pestle in his hands. Choroti. Gran Chaco, Bolivia. Photo. E. v. R.

The huts have one, or even two, entrances, about one metre in height (figs. 16, 25), but huts of the largest size are sometimes provided with several entrances. A sort of porch, constructed of branches and grass, may occasionally be built out from the entrance. When several huts are close together, they may not unfrequently be connected with each other by means of covered passages, or tunnels, built similarly to the huts.

The latter do not contain many utensils. Ranged along the wall, bowls made of gourd shell, a few clay vessels and a wooden mortar, are generally seen. In prettily knitted net bags of spun caraguatá fibre,[1] the Choroti keep all manner of small articles, such as mussel-shell spoons, wooden sticks for fire-drilling, toilet articles, magic rattles, etc.

[1] Caraguatá, or chahuar (chaguar), Bromelia serra, is, as I have already pointed out, especially common in the Chaco.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Fig. 27. Wooden digging stick (wand of Bulnesia sarmienti). The handle and the spade-like point are flat, the rest, of round section. Choroti, Gran Chaco, Bolivia. 1/6. Riksm. no. 3 84.

a secondary one.[1] In Central Africa I have seen Wemba and Bisa men construct food-storing racks for smoking food; or drying it by fire. These racks are built on exactly the same plan as the cooking-sheds of the Choroti, although lower than the latter, and not covered with grass. That also the Indians of South America made use of drying or roasting racks, is evident from fig. 29, provided that this picture, reproduced from an account of travel in the 16th century,[2] actually is a faithful representation of an Indian roasting-rack.

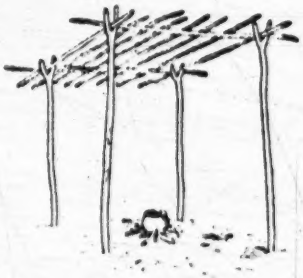

Fig. 28. Frame of cooking shed; also used as a food rack. Choroti. Gran Chaco. Bolivia. From Erland Nordenskiöld.

The roasting-rack, such as it is reproduced above, may conceivably be a development of the food-storing rack discussed by me in chapter VII (pp. 198, 199), and in the following way: Those usually fairly tall racks that are built for the protection of food against damage from wild or domestic animals, are, as a rule, particularly well adapted for drying fish, etc. When the weather is unfavourable to sun-drying, the idea would present itself of assisting the preserving process by making a fire under the rack, by means of which the food would dry more quickly, at the same time that, through the action of the smoke, it would keep longer from decomposition. By lessening the height of the rack, in the way shown in fig. 29, the effect of the fire would be increased so much that the food would quickly be cooked, and ready for immediate consumption.

When the Choroti quit a dwelling site in order to build their village elsewhere, they often burn their old

[1] Cf. my theory as to the origin of pile-building construction, pp. 193—199.
[2] Schmidel (1), p. 39.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

however, that this object, on account of its weight and shape, would be rather unsuitable for a head ornament. At an attempt at fixing this bunch in a band tied round my forehead, the cluster overbalanced at the very first sharp movement. With some Indians (e. g., the Pueblo Indians of New Mexico) it is the custom at certain dances to hold branches in the hands,[1] and the Mataco, on occasions, dance round two men who are each holding a bunch of sugar cane, resting it on the ground. In this

Fig. 46. Hair-net, with chin strap of red, woollen yarn. The technique in the knitting work resembles what is known as macramé lace. Hair-net as well as chin strap decorated with snail-shell spangles. Choroti, Gran Chaco, Bolivia. 1/1. Riksm. 10. 3. 15.

Fig. 47. Hair-net of red woollen yarn. Knitting technique resembling that of macramé. In the chin strap, which consists of grey woollen yarn, small downy feathers are worked in. Choroti, Gran Chaco, Bolivia. 1/1. Riksm. 03. 3. 5.

latter case the dance in performed in order to hasten the ripening of the sugar cane.[2] The fan palm being of great importance in the food-getting of the Choroti, it is not inconceivable that the palm-leaf bunch here mentioned has been used at some magic dance, held with a view to obtaining an increased supply of palms. That palms are sacred trees, is a universal idea with the Indians,[3] a fact that enhances the possibility of this cluster having had some magical purpose. It may perhaps appear strange that I did not, without further ado, accept the statement of the

[1] Donaldson (1), plates facing pp. 117 and 119.
[2] Karsten (1), p. 80.
[3] Karsten (4), p. 126.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

who was wearing it, for, according to his statement, this ornament originally belonged to an enemy killed by him (Cf. the »scalp lock» on the Indian in fig. 42).

On the Spaniards' first coming to the Inca kingdom, there was, naturally, in that country much that aroused their great astonishment. Among

Fig. 50. Bamboo casing for keeping ostrich-feather head ornaments. Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 10. 3. 18.

Fig. 51. Palm leaf object, said to be meant for wearing in a frontlet. Choroti. Gran Chaco. Bolivia. 1/4. Riksm. 03. 3. 29.

other things, the strangers found it especially remarkable that Peruvian men of noble birth were wearing immense, often metal-mounted wooden discs, or hanging ornaments, in their pierced ear-lobes, which were distended to a monstrous size. This custom occasioned the Spaniards to give the Peruvian nobles the nickname of »orejones» — which might be

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

CHAPTER III.

The Choroti (3). Modes of subsistence.

Their various industries. Hunting. Bows. Arrows. Game-stalking. Game-driving. Decoying game by imitative calls. Tracking. Snares. War weapons. Clubs. Knuckle-dusters. Bone daggers. Knives made of cane. Mail shirts. Methods of warfare. Incendiary arrows. Ambuscades. Preparing for war. Scalping. Torture. Causes of war. Fishing. Nets. Driving fish. Blocking up fishing-water. Swimming and wading, in fishing. Fish fences. Pile-buildings used in fishing. Mesh-spacers. Fish-hooks and lines. Fish clubs. Transportation of fish. Dangers in fishing. Gathering of wild food plants. Implements used in gathering wild plants. Agriculture. Cultivated plants. Agricultural implements. Cattle-rearing. Domestic animals. Nomadic life. Trading.

The Choroti subsist on hunting, fishing, the gathering of wild, edible plants, and, to some small extent, also on a very primitive form of agriculture, and by trading with their neighbours.[1]

Hunting of game is mainly done with bows and arrows, and snares. The pellet-bow and the sling are met with among the Choroti, but are only used as toys.[2]

The collection of Choroti objects that I presented to the Riksmuseum included 14 bows, only 11 of which are now to be found. They form the material upon which the following description of Choroti bows is founded.

The bow staves consist of some kind of wood which is hard, resilient and usually free from knots. Probably quebracho (Schinopsis lorenzii) and palo mataco (Achatocarpus praecox) are the woods most frequently used as bow stave material. The bows of the Choroti (figs. 90 and 91) are better made than those of the Chiriguano, but are not of such good workmanship as the bows that I have seen among the Toba on the upper Pilcomayo.

[1] The description I am here giving of the Choroti refers, unless otherwise stated, to this tribe's mode of living at the time my observations were made (1901). Since then, many changes have come into the Chaco Indians' mode of living.

[2] Nordenskiöld (13), p. 48.

[p. 85]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

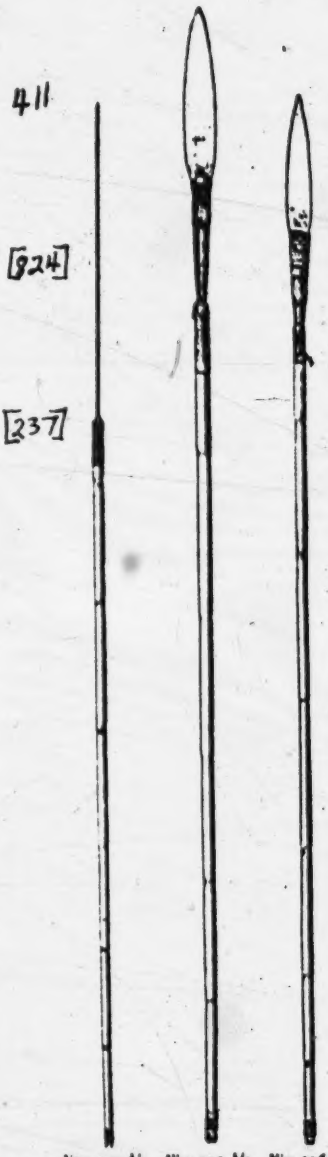

Fig. 104. 1/3. Fig. 105. 1/3. Fig. 106. 1/3.
03. 3. 335. 03. 3. 360. 03. 3. 375.
Arrows tipped with iron, and with reed shafts. Choroti. Grant'haro. Bolivia. Riksm.

specimen, which ought to be in the Riksmuseum collection (numbered 03. 3. 259).[1]

The arrow-shafts consist of a reed, and are generally without feathers. When they do occur, they are fastened on in the way fig. 107 shows.

The wooden arrow-heads, which are usually of quebracho (Schinopsis lorenzii), palo mataco (Achatocarpus praecox), or palo santo (Bulnesia sarmienti), are fitted into the reed shaft, the front end of which is wound with caraguatá fibre in order to prevent its being split open by the arrow-head. This winding is coated with bee's-wax. The rear end of the reed has a notch for the bow string (see fig. 107). The length of the reed is adjusted in such a way that the notch in the butt end can be made immediately behind a joint, which naturally increases the strength of the shaft butt. The rear end of the shaft too is provided with a heavily waxed winding of caraguatá fibre. The thicker end of the reed (the lower end of the growing reed) is always used for fixing the arrow-head, as then the joints slip more easily over the bow-stave than if the head were inserted in the thinner end of the reed.

Such arrows as are pointed with thick iron wire (fig. 104), have the rear end of the point wound with well waxed fibre. The fibre-wound part of the arrow head is pushed so far into the shaft as to make the front edge of the winding come flush with the mouth of the reed shaft. Lanceolate iron heads (figs. 105 and 106) are fitted into a cleft wooden socket, in the manner I have described from the Chiriguano (see p. 208). Over the winding, which

[1] Cf. Nordenskiöld (11), fig. 5 b.

[Not processed, – Analyst]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

thread is wound on and fastened. Probably this thread,[1] was used for securing the bait so that it should not slip off the barbless hook. The line, which consists of three-ply yarn, is 4.4 m. long.

When a fish has been caught, it is killed with small, round-sectioned clubs of some hard and heavy kind of wood (fig. 120), and then strung on a cord, which, by means of a wooden needle (fig. 121), is threaded through the head of the fish, being passed through its eyes. The fish-festooned cord is carried round the fisherman's waist. This is a safe and handy way of carrying the catch whilst continuing fishing operations, swimming or wading. When a collected catch of fish is to be transported

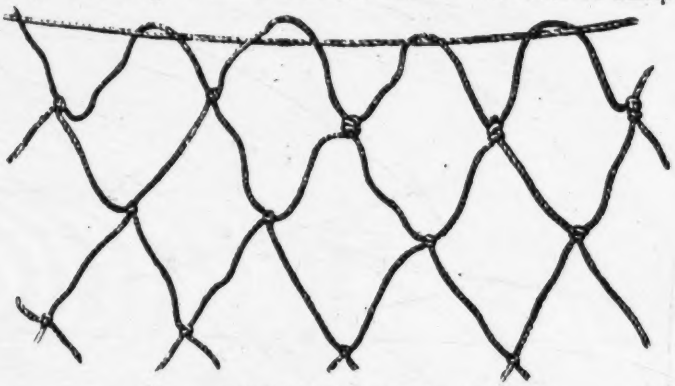

Fig. 117. Enlargement of the net in fig. 116. 2/3.

home to the village, the fish needle and cord also come in very useful. The implement here shown is from the Toba, as the Choroti specimen which I brought home (Riksm. 03. 3. 243) is now lost. The needle in the implement here reproduced probably consists of palo mataco, or quebracho, and has a length of 380 cm and a diameter of 0.5 cm. The cord, however, tapers towards the ends, its extreme points being only a few millimetres in thickness. One end of the cord is bent back so as to form a loop. Through this loop, and through the eye of the needle, a thinner caraguatá string has been passed, several turns, and with this string the loop has been wound, in the way seen in the picture. The specimen here shown is meant for carrying large-sized fish, but these implements are also to be found of much slenderer dimensions.

[1] I have no notes concerning the purpose of this thread.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

136 481 292 I have mentioned that the Choroti do not possess any water-craft, so that when fishing with nets they often have to wade or swim. In doing this, they expose themselves to being attacked by palometa fishes. As a protection for their legs in wading, the Indians occasionally wear a kind of mail stockings of caraguatá (see p. 54), but when they are swimming, they often get badly mauled by these fierce fishes, and I saw several Choroti with enormous scars from the bites of palometas (fig. 53). It also happens, now and again, that Indians, whem swimming, get killed by caymans, which, here and there, are plentiful.

[286 824]

Fig. 118. Mesh-spacer of palo santo (Bulnesia sarmienti). Length 14.0 cm, width 3.0 cm; thickness along longitudinal axis 0.9 cm. The thickness decreases towards the longer edges, which are rounded. Choroti. Gran Chaco. Bolivia. Riksm. 03. 3. 242.

222 In the collection of the fruits, roots and pith of wild plants the Choroti possess an important source of subsistence. The Chaco Indians obtain edible fruits from, inter alia, the algaroba (Prosopis alba), the chañar (Gourliea decortitans), the mistol (Zizyphus mistol) and the tusca (Acacia aroma). The rootstocks of the caraguatá, or chahuar (Bromelia serra), plant are used for food by these Indians, and the same applies to the pith of the fan palm (Copernicia australis). For pulling down within reach the fruit-bearing branches of trees, the Indians make use of wooden hooks with a short arm and a long one, the latter then serving as a handle, whilst the tree branch which is to be bent down, is hooked with the shorter arm of the implement.[1] In digging up the spiny caraguatá plants the Choroti use a forked stick.[2]

[227]

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Fig. 119. Fishing hook of iron, with line of caraguatá fibre. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 238.

Fig. 120. Fish club of palo santo (Handle upwards). Choroti. Gran Chaco. Bolivia. 1/6. Riksm. 03. 3. 87.

At the time of my stay among the Choroti, the part of the tribe with whom I was in touch carried on no other agriculture than the growing of pumpkins in a primi-

[1] Nordenskiöld (11), fig. 3.
[2] Nordenskiöld (13), fig. 49.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

I cannot tell, but from an analogous carving from the Lengua it is very probable that they represent spirits.[1]

Most rattles contain seeds, and in many of them are also found a large number of metal fragments (see synoptical table below). The latter as a rule consist of small, square pieces of tin plate, for the most part with a side of from 5 to 15 millimetres. Bits of glass do not unfrequently occur in the rattles, although never in any great numbers; generally only a few bits of glass are found in any one rattle. In the Chaco, bits of glass are naturally extremely rare. In the rattle reproduced in fig. 181 were only found bits of tin plate and one cactus spine. Although this rattle belongs to the handle hole type (see pp. 148, 149), it nevertheless has a hole in the bottom, with a plug of the kind I have described in connexion with the magic rattle, fig. 170. Professor Robert Fries has been kind enough to examine the different kinds of seeds that I have found in magic rattles, as well as in the bag mentioned below, and he then determined the presence of a species of Canna, a leguminous plant, a species of Convolvulaceæ, one of Sapotaceæ and a Smilax. Several kinds of seeds could not be identified from lack of material to compare them with.

Synoptic table of contents in magic rattles from the Choroti.

Riksm. coll. 03. 3.

No. of rattle	Type of rattle	Contents
386	Plugged hole through bottom. Carrying cord (fig. 170).	Seeds (Smilax and undetermined), 1 dark blue piece of glass.
385	Ditto.	Seeds (Smilax and Canna), 2 bits of zinc plate, 1 spiral spring of iron, 2 cactus spines.
390	Plugged hole through top of handle, ditto through bottom. No carrying cord. (fig. 181)	Nine bits of plate iron, one cactus spine.
384	Like foregoing, but no hole at the bottom.	Seeds (Canna and undetermined), 2 bits of plate iron.
387	Ditto.	Seeds (Smilax, a leguminous plant, and of unknown species), 34 black glass beads, 1 blue glass bead and 4 yellowish-green bits of glass.
388	Ditto.	Seeds (Convolvulaceæ and unknown), 1 piece of zinc plate, and 1 uncoloured piece of glass.

From a Choroti I obtained by barter a small bag of red cloth (Riksm. 03. 3. 391), abundantly wound round with caraguatá string, in which he said he used to keep the things that he put into magic rattles.

[1] Grubb (1), p. 75, and fig. 2 on plate following p. 70.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

make the throw with the right hand alone, leaving the left free to steer or direct the boat.»

In the mountainous districts and on the Peruvian coast it was in part no doubt the lack of wood suitable for making bows that made this a rare weapon, but also in part the advantage of having the left hand free while using the throwing stick.

The bow (Fig. 4) that is used by the Indians dealt with here, is very poor in comparison with the bows used by most of the Indians inhabiting N.E. Bolivia. The transverse section shows a very varying form. The two ends of the bow are sharpened to a point, and are not provided with notches to hold the string. Bows of this sort, without notches, seem to belong to a very old cultural phase in S. America, for we only find them in the extreme south, and among a small number of very primitive peoples in Bolivia and Brazil.

Pater Schmidt mentions the following tribes that have bows ending in a simple point without notches for the string: Botokudo, Bugre, Chamacoco, Saputki, Mataco, Toba, Angaité, Payaguá, Mbayá (Kadiuéo), Siriono, Pampas Indians, Miraña, Yanaperi and Uašmiri[1])

A few tribes have very indistinct notches at the end of the bow.

To the tribes enumerated by Pater Schmidt I can add, on the basis of archaeological material, the Indians in the Puna de Jujuy in Argentina[2]).

The bow-strings of the Choroti and Ashluslay Indians are made partly out of caraguatá fibres, partly out of strips of skin. Bowstrings of animal material are only found among the Indians in southern S. America as far north as the Chaco. (Map 2). In tropical S. America such bow-strings are unpractical and rare. Bow-strings of tendons or strips of skin

[1]) Pater Schmidt, p. 1033.

[2]) Lehmann-Nitsche (1) Pl. 2, fig. 3; pl. 3, fig. 16.

2: Karsten E-5 (1911-1913)1932 S17 Mataco S17
Toba S112
Choroti SK6

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in their magical dances and conjurations the Indians as a matter of fact most often deal with these particular evil spirits.

These are features common to the religious beliefs of all Indians of the Chaco: indeed they are found among all South American Indians. But even in the Chaco this general belief in spirits appears in somewhat different forms among different tribes. The *Choroti* fancy that the spirits, *mōhsek*, in their external appearance have the shape of old, withered men (*kihilahs*). They are, in the imagination of the Indians, provided with wings, which enable them to move rapidly through the air. Owing to their bird-like appearance the spirits are also called *ahuena* (»the birds»). They are countless in number, mostly invisible, and as a general rule evilly disposed towards mankind. I never met an Indian who professed to have *seen* a *mōhsek*, but nearly all say that they have *heard* their voices at night. One peculiarity of the demons of the Chaco Indians is that they only exist at night. As soon as darkness sets in the Choroti Indian fears mysterious dangers from the *mōhsek*, who are then believed to draw near the villages in great numbers and even to enter into the huts, visiting the inhabitants with sickness and death. This is the reason why a traveller living with the Choroti can hear from some house nearly every night the low chant of some old man accompanied by the dull sound of the rattle gourd, *pelite*, with which he tries to conjure and keep off the supernatural pests. At daybreak however the spirits are supposed to leave for the forests and the plains — with a piping or whistling sound, the Indians explained to me, which they are very clever in imitating. For this purpose the Choroti use a special kind of round whistle which they generally wear hanging round the neck as an ornament. At their religious dances they produce, from time to time, shrill whistling sounds with these whistles, professedly with a view to conjuring the *mōhsek*. The Indians believe that they can keep supernatural beings at bay by imitating them in their external appearance or their sounds.

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In the Chaco many weird sounds are heard at night which are apt to fill the natives with superstitious fear. The Choroti frequently told me about the »nightly whistling of the spirits» (*yap mōhsek ahnáh*). The peculiar piping or whistling which is most often identified with the sound of the spirits is, I believe, produced by certain insects living on the stems or branches of the trees. The spirit of the tusca tree was specially mentioned to me, but this spirit is said to be a »good» being.

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The idea of the Choroti, that the spirits have the shape of old men, has given rise to a peculiar and cruel custom. They do not allow their

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2: Karsten E-5 (1911-1913)1932 S17 Mataco

Choroti SK6

there are several evidences of a nature animism, although as a general rule only such objects and phenomena as especially strike their imagination or with which some remarkable incidents are connected, are incidentally or permanently looked upon as being animated by spirits. There are evil demons in the sky, which among other things cause such strange phenomena as eclipses of the moon, of which the Choroti have the same idea as the Mataco and most other Chaco tribes. Other evil spirits of the sky cause drought, which in the Chaco forms the greatest obstacle to a successful cultivation of the fields. The demons keep the rain back, and the Indians in consequence try, during the dry season, to conjure them by drumming, shaking rattles and chanting so as to compel them to release rain. On the other hand, there are demons operating in the violent thunderstorms, although these are generally accompanied by torrents of rain. The Choroti believe that thunder and the flash of lightning are caused by a great number of *mōhsek* who are rushing through the air and making an onset upon the village. These spirits are more often called *ahuéna*, »the birds», and thunder and lightning are therefore generally called by the Indians simply *ahuéna*, although the proper name in the Choroti language is *súntini*. Every time a burst of thunder is heard, the Indians, sitting in their huts, begin to shout and scream loudly, in order to frighten away the molesting supernatural visitors. There are evil spirits in the violent whirlwinds and sand-storms so common in the Chaco, as well as in the cold south wind, *niúk*, which during the dry season sweeps over the plains and produces rheumatism and chills among the natives, badly equipped as they are against cold weather. The warm north wind again, *úkine*, is sent by »good» spirits. Thus the radical contrast between the cold south wind and the warm north wind, both of which are sent by supernatural agents, has been to the Choroti the main reason for making a distinction between two of the four cardinal points.

Spirits, *mōhsek*, are also believed to animate *trees* and *plants* -- bad spirits poisonous and harmful plants, good spirits the beneficial and useful ones. The ideas which the Indians entertain about plant spirits and the customs to which they give rise, are substantially the same among all the tribes, and I shall presently give an account of them.

The Choroti also believe in *animal* demons. Thus they share the belief, held by all Indians in tropical and subtropical America, that a jaguar which attacks Indians or appears under unusual circumstances, is a »man-tiger» *i.e.* a man, generally a sorcerer, who has assumed the shape of this beast. Even in his lifetime a sorcerer may incidentally change

2: Karsten E-5 (1911-1913)1932 SI7 Mataco
Toba SI12
Choroti SK6

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shape of a horse [1]) — an animal which is regarded with superstition by the Choroti — and will kill the »good spirit» of the inimical sorcerer. The latter, being thus deprived of his assistant genius, will fall an easy victim to his assailant.

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The guardian spirit is not hereditary but is acquired individually in the course of life and to a certain degree through teaching. The older a person grows, the more power and influence he is believed, by the Tobas, to gain over his *peyák nõtta*; hence the medicine-men are generally men of advanced age. The same may be said of the *Choroti*, who regard every old man as being more or less a sorcerer and endowed with supernatural powers. Since the women are always physically and spiritually weaker than men, they have always more difficulty in obtaining guardian spirits. I only know of a special initiation for women, who dedicate themselves to the exercise of the magic art, in the case of the Choroti. A women who wants to become a sorcerer, I was told, must eat a raw chirimoya fruit (*Anona chirimolia?*). When ripe, the chirimoya is edible and good: but in an unripe condition it is said to be poisonous, and a person eating of it according to the belief of the Indians will die or fall ill. If however the woman, while she is eating the raw fruit, performs the ceremony *Kausimã* with the magical rattle staffs, she will escape harm, and she will moreover in the future be able to conjure spirits with success. This idea is in fact typical of the initiation ceremonies of the Indians: the woman has been in contact with evil spirits but has been able to resist them, in consequence she has been rendered immune against them and acquired power over them which enables her to use them for her own ends in the future.

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Apart from the fact that the »good spirit» of the Choroti medicine-men is at least in some cases believed to appear in the form of a horse, the »good spirits» are in their external appearance like other spirits. The *Tobas* say that their *peyák nõtta* dwells in the heavens (*piyim*) from where he comes down to assist the medicine-man who invokes him. Similarly the Choroti say that their *mõhsĕk eis*, when summond by the sorcerer comes down from the sky, but the »sky» (*põle*) is not to the Choroti a definite place like the *piyim* of the Tobas. *Piyim* has developed into a mythological concept: it signifies Paradise or the realm of the dead of the Toba Indians. When a Toba Indian dies, I was told,

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[1]) Since the horse was introduced among the Chaco Indians by Europeans, this is not of course an original idea of the Choroti.

and 40). Miss Agnes Branting, who has kindly examined the textiles here reproduced, found the frontlet in fig. 40 especially interesting, as similar fillets are woven by the peasantry in very many provinces of Sweden, for instance Scania, Halland, Wermland and Helsingland. Miss Branting writes on this matter as follows: »Fillets of this kind are made without any other implement than just any sort of object to which the yarn can be attached, say a weighted pincushion held on the knee. The weaving is begun from the centre of the fillet by crossing one yarn over another; for each turn a yarn is added (from a number fastened with pins) on either side. When the edge yarn has been reached, this is turned inwards, and the plaiting then proceeds from the edges towards the centre. This gives a certain firmness and compactness to the edges, and makes the middle portion slightly thinner, as may be noticed if looked at against the light.»[1]

Fig. 38. Legging, of deer skin with yellowish-brown hair-covering remaining. Worn for protection against thorny plants. Choroti. Gran Chaco. Bolivia. 1/4. Riksm. 03. 3. 383.

Sometimes the frontlets are decorated with snail-shell spangles, sewn on, although such pieces of magnificence as the frontlet here shown in fig. 41 are very rare. From fig. 42 can be seen the way this frontlet is meant to be worn. These very decorative snail shell spangles are made from the shells of a large, white land snail (Borus oblongus, fig. 43), common in the Chaco. The Choroti do not themselves make these snail-shell spangles, but obtain them through barter from other tribes.

Narrow frontlets of woollen yarn (see fig. 30: the 3rd and 4th men from the left) or birdskin (see figs. 17 and 30: the boy who is fifth from the left) are of very common occurrence; less frequently seen are frontlets made from palm leaves, some of which are provided with chin straps, so as not to slip easily off the head (fig. 44).

At dances and other festive occasions, the men are fond of wearing particularly handsome, broad frontlets or head ornaments of stiff or downy

[1] Compare with this a method of hand-weaving described from the Choroti by Erland Nordenskiöld. Nordenskiöld (13), p. 111.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

To the frontlets are affixed one or more feathers (figs. 32, 16—18, 24, 30 and others). These are obtained from many different birds, ranging from ostrich and white heron to domestic fowls. The feathers are often nicked,

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Fig. 40. Frontlet, of wool, with angular ornament in brownish-black and greyish-white. Choroti. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 9.

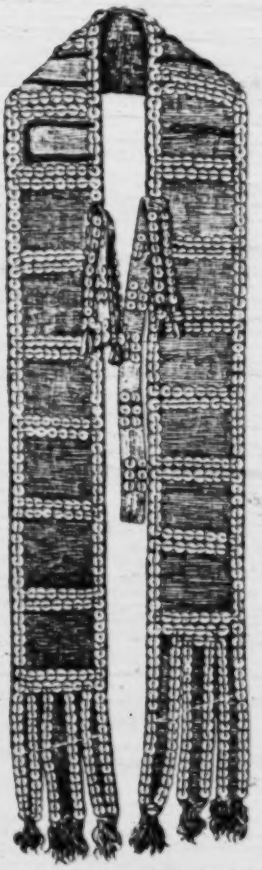

Fig. 41. Head ornament, consisting of a red, woollen, frontlet, 7 cm wide, with snail-shell spangles sewn on, and, in front, beset with turquoise-blue glass beads. Choroti. Gran Chaco. Bolivia. 2/3. Riksm. 10. 3. 134.

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Fig. 42. A Lengua Indian with head ornament, »scalp lock» and whistle (the latter hanging round the neck on a string). From Hawtrey.[1]

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Fig. 43. Borus oblongus, a white land snail, common in the Chaco. From its shell the Indians make small spangles, with which they adorn themselves. Gran Chaco. Bolivia. 1/3. Riksm. 03. 3. 47.

[1] Hawtrey (1), p. 282, fig. 2.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Round the ankles the men often wear birdskin bands, in appearance similar to the armlets (fig. 30, the second man from the left). There may also be seen anklets made up from ostrich feathers lashed on to a thickish cord of caraguatá or wool (fig. 59). According to what several Choroti Indians told me, anklets are worn not only as ornaments, but also as a protection against snakebite. If a man wearing feathered anklets should happen to step upon, or close to, a snake, the latter, my informants assured me, would almost for certain first strike at the showy feathers. This warns the man of his danger, and he will generally have time to jump aside before the snake is ready to strike again. This belief is also found among the Lengua.[1]

Fig. 59. Anklet, made of ostrich feathers tied round a thickish piece of string. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 34, a.

The articles of dress, as well as the ornamental objects,[2] that I have described in this chapter, are, as I have said, only such things as appertain to the stronger sex; but one ornament, however, which to an equal extent is worn by men as well as women, is the finger ring made of lizard skin (fig. 60). These rings are made in a rather original manner. Anybody wanting rings, whether for himself or for giving away, kills a lizard. The part of the animals tail that in thickness about equals the size of a human finger, is cut, according to its segments, into slices from 2 to 5 mm wide, and then the inside of the sections is removed. The rings are now ready for use, and it only remains to try them on for the best fit. As we know, the tail of a lizard tapers towards the tip, and this makes the rings differ somewhat in size, so that it is no difficult matter to find rings to fit any sizes in fingers.

Fig. 60. Finger ring of lizard skin. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 35.

[1] Grubb (1), p. 73.

[2] Many of these ornaments have a magical character. In Chap. VI I shall deal with this point more fully.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

Choroti bows.

411

Catalogue Nr., Riksm. coll. 03. 3.	Bow-stave material	Length of bow stave, cm	Transverse section at middle of bow stave	Upper string-hold	Lower string-hold	String-material	Remarks
245	Hard, resilient, free from knots	150	Type A	Not pared down	Not pared down	Twisted rawhide	String hold barely noticeably pared down
247	Hard, resilient; less free from knots	150	» »	Not pared down	Not pared down	»	
250	Hard, resilient, free from knots	146	» »	Pared to a neck	Pared to a neck	»	Bow stave near point of upper end sheathed in a rawhide covering, slipped on, about 4.5 cm long
254	Hard, resilient, free from knots	133	» AB	Not pared down	Not pared down	»	Winding for fixing string loop
256	Hard, resilient, free from knots	146	» B	Not pared down	Not pared down	»	Winding for fixing string loop
255	Hard, resilient; less free from knots	146	» »	Not pared down	Not pared down	»	Unusually sharp pointed end
251	Hard, resilient, free from knots	144	» »	Not pared down	Not pared down	»	
252	Hard, resilient, free from knots	136	» »	Not pared down	Not pared down	»	Bow stave near its middle provided with a rawhide sheath, about 8 cm long
253	Hard, resilient, free from knots	133	» »	Not pared down	Pared to a neck	»	Winding, to prevent slipping of string loop. A 5.5 cm long sheath of rawhide fitted on, near lower end of stave
258	Hard, resilient, free from knots	142	» BC	Not pared down	Not pared down	»	
277	Hard, resilient, free from knots	147	» C	Not pared down	Not pared down	»	Winding for fixing string loop.

of convex type — i. e, the staves have a convex string side, and a plane, or slightly concave, back — but I have not seen any Choroti bows with that kind of stave, which does not exclude the possibility of their occurring by way of exceptions. The convex bow is, however, better than the concave kind, and all technically perfected European target bows have their staves convex.[1] The fact of the concave bow being common among a people as low-cultured as the Choroti strikes one as something less to be wondered at than that this type of bow also was in use (together with the concave type) among the comparatively highly cultured Andean tribes.[2]

411 825 In some of the Choroti bows, a sleeve-like covering of rawhide has been fitted on to the stave (see Table »Choroti bows», under »Remarks»).

[1] Walround (1), p. 286 et seq.

[2] I have previously published an attempt at explaining how the concave type came into being. See von Rosen (10), pp. 34, 35 and 78, 83.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

These casings are not sewn together, but consist of the seamless skin of the tail or leg of some animal. At first I took it as a matter of course that these casings had been put on solely for the purpose of strengthening the bow at some point where it looked like breaking. In order to make certain, I cut loose a casing of this kind, which was on the bow numbered 03. 3. 253, but I could not discover the least crack, knot, or other defect pointing to any necessity for reinforcing the bow at that point. But, between the casing and the stave, I did find some flattened cakes of excrement from some herbivorous animal. Whether these excrements had *purposely* been placed inside the casing, is of course impossible to say, but if they were put there on purpose, then they undoubtedly possessed some magical significance. In such case the idea must have been that they would bring good luck in the hunting of the species of game whose excrement had been placed inside the casing (see p. 181). As among the Indians there is a very wide-spread notion that whoever possesses the skin of some animal also possesses a certain mastery over the spirit of that animal,[1] it is not impossible that the skin casing itself is of a magic character. Professor Emil Holmgren, who, at my request, kindly carried out a microscopical examination of the excrement flakes as well as of the piece of skin, considers that the character of the latter points to its having been a part of the tail of an animal of the goat, sheep, or *cat* tribe, and that the colour and grouping of the hairs are indicative of the *last-mentioned* category.[2] That parts of animals' bodies are used by the Chaco Indians as hunting amulets, is, among other things, evident from a statement by Nordenskiöld upon the subject of hunting among the Ashluslay, who are neighbours of the Choroti: »In hunting, the Ashluslay make use of various amulets. If, in the always indispensable caraguatá bag, one carries the head of a tortoise, then one is able to stalk close up to the deer, without putting them to flight. When hunting ostriches, it is a good thing to bring along pieces of skin taken from the breast of ostriches which one has killed.»[3] As to the other two bows, I have refrained from cutting off the skin casings, and therefore cannot say whether the latter conceal any cracks or not. On the staves of the bows Nos. 03. 3. 252 there are, however, to be seen, close to the casing, several deep scorings, running

[1] Karsten (4), p. 90.
[2] Opinion dated August 24th, 1921. Roskelstad collection of Manuscripts, Volume 1921, »H».
[3] Nordenskiöld (13), p. 40.

1: Rosen E-5 (1901-1902) 1924 SK6 Choróti SK6

shape as the strange-looking Choroti arrow, which is seen in fig. 102.[1] The Esquimaux, like the Choroti, live in a bone-and-wood age, although the latter people to a large extent use the bone-hard wood of several species of Chaco trees in the place of bone. In both cases the arrows are intended for hunting big game. It is a strange thing, however, that the arrows just referred to, from Greenland and from the Chaco, are so much alike in shape that one might point to a reproduction of the Esquimaux arrow in question as being the type of a lanceolate, barbed, Choroti arrow. As to the ancient Indian arrows of Chaco type found within the Andean region, previously referred to, it is, however, not only their form that is identical with the Chaco arrows, but also the material (reed, and species of wood that do not grow in the mountain region) is typical of the Chaco. This being so, it may with great certainty be established that the ancient Indian arrows in question really originate from the Chaco, and that we here have one of the many indications that point to old-time communication between the mountain region and the plains to the east of it.

The Choroti hunt all sorts of game, from jaguars, pumas and ostriches, to lizards and rats. Among edible game are counted, among others, also birds of prey (even vultures), foxes, armadillos, rats, lizards and snakes. On the other hand, some Choroti, at least, will not touch deer's flesh, as they believe these animals to be possessed by evil spirits.[2] Some of the species of animals just enumerated, too, are by certain individual Choroti considered dangerous to eat (see p. 114).

When the Choroti are out hunting with bow and arrow, they naturally endeavour to stalk as closely as possible up to the game, and then occasionally employ a stratagem common to many tribes who live by the chase, namely that of tying tall leafy bunches about waist and shoulders, so as to give the hunter the appearance of a bush. This stalking trick is also known to the Lengua. On this point, Grubb writes to the following effect: 'The ostrich is a very wild, though stupid bird, and the hunting methods of the Lengua are based on this fact. When hunting in a palm forest, the hunter ties a few palm leaves together and fastens them to his head and shoulders, so as to resemble a small palm. By means of this disguise he has no difficulty in getting within easy range of

[1] Solberg (1), p. 73, fig. 54, bottom row of arrows, the second specimen from the left.
[2] Karsten (2), p. 33.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

As regards snail- and mussel-shell necklaces (figs. 56—58) it should be specially mentioned that those of the first-named kind, at least, are by the Choroti looked upon as amulets for warding off illness and other evil things.[1] It is not improbable that necklaces made out of glass beads, which have been obtained from the whites, are also held to be amulets. This because of the fact that, among many primitive peoples, the belief has been observed that such glass beads as in modern times they have acquired by way of trading[2] possess magic properties,[3] as well as do the glass-[4] or stone beads[5] that they themselves have found in ancient dwelling-site deposits or graves.

Occasionally the Choroti wear anklets of birdskin, or ostrich (Rhea) feathers tied together (fig. 59). On page 71 I have mentioned that these anklets are not exclusively ornaments, but that they also serve a purely practical purpose. The fact is that the Choroti, as well as other Chaco Indians, regard them as a protection against snake-bite, in that a snake is more likely to strike at the feathers that are on the anklet than at the leg, or foot, of the one who is wearing it. Karsten states, on the authority of Grubb, that the Lengua for the same reason wear anklets made of feathers. But to Karsten this natural explanation is not sufficient, for he remarks that Grubb might have added that these anklets are, at the same time, looked upon as amulets, because the Indians believe that an evil spirit accompanies the snake venom in entering the foot of a person bitten.[6] Karsten endeavours to show that all feather ornaments are, by the Choroti Indians, regarded as magic objects.[7]

Most primitive peoples ascribe magical properties to many of their belongings. For example, our Viking forefathers largely regarded their weapons and other equipment as possessing magical powers. It is well known that the Vikings believed that, for instance, swords, and other edged implements, in some magic way could give their owners protection against evil spirits. But the main purpose of swords and edged tools was

[1] Karsten (1), p. 139.
[2] See for example von Rosen (4), p. 305.
[3] See fig. 182: 20—21, and text on pp. 169 and 170.
[4] See, e. g., von Rosen (1), p. 251.
[5] See, e. g., von Rosen (1) p. 200.
[6] »He might have added that they are at the same time regarded as magical charms, since with the snake's poison an evil spirit is believed to enter the foot.» Karsten (4), p. 119.
[7] Karsten (1), Chap. III.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

wooden awl, so that blood flows.[1] In reply to my question, Nordenskiöld has been kind enough to tell me that he never saw the Indians using awls of any other material than wood for this purpose. On the other hand, both he and I, and other Chaco students, have seen Choroti pricking themselves with bone awls (figs. 185 and 186) when feeling tired. In order to ascertain whether the Indians in making their bone awls gave preference to any particular bone of any particular animal, I asked Professor Lönnberg to try and identify the animals from which the material had been taken for all the bone awls in my collection. Professor Lönnberg very kindly acceded to my request, and here below I give the result of his investigation.[2]

Awl No. 03. 3. 183. Upper part of right ulna of a large feline animal, probably a female puma.
» » 03. 3. 82. » » » left » » » feline animal, probably a young puma.
» » 03. 3. 181. » » » » » » » » (somewhat smaller than the foregoing).
» » 03. 3. 84. Lower part of canon bone of small ruminant (deer calf?).
» » 03. 3. 184. » » » » » » » »
» » 03. 3. 185. » » » » » » » »
» » 03. 3. 83. Probably a fragment of ulna of a bird (raptorial?)
» » 03. 3. 180. » » » » » » » » of a species somewhat smaller than the foregoing.

The remainder of the bone awls that were submitted by me to Professor Lönnberg consisted of fragments, impossible of determination.

Unquestionably, it must strike one as peculiar that out of eight determinable pieces of bone, three of them probably consist of ulnæ of such a ferocious animal as the puma (the killing of which to the Indians is a matter of deadly peril). Another thing, which is in my opinion noteworthy, is that two of the awls probably consist of ulnæ of raptorial birds, and that the three remaining ones all consist of canon bones of some species of small ruminant. In fig. 81 I have reproduced an awl consisting of the jawbone of a Siluroid: this implement, however, at the same time being a kind of stamp for applying red paint to the face. Whilst paying a visit to the Gothenburg Museum, I was, by the courtesy of the Keeper of Ethnography, Baron Nordenskiöld, given the opportunity of going through the collection of bone awls that he has acquired from Indians of the Chaco, which collection now forms part of the Museum. On examining

[1] Nordenskiöld (18), p. 49.
[2] In accordance with letters dated July 3 and 18, respectively, Rockefeller collection of Manuscripts, Volume 1931, letter 1.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

way, *and by renewed research among the Indians*, that we shall be enabled to obtain a thorough knowledge of their conception of magic blood-letting by means of awls.

In the foregoing I have mentioned that Choroti bow-staves are sometimes provided with a small skin casing, slipped on, and that on opening one of these casings I found that it contained excrements from some herbivorous animal. It is of course impossible to tell with certainty what the motive was for putting on this skin casing (see pp. 88 and 89), but I think it probable that it was put on the bow for some magic reason. It is noteworthy that it contained excrement. The fact of this being so is a circumstance that, in my opinion, especially points to the casing being of a magical character, for, according to the Chaco Indians' way of thinking, certain excrements possess magic properties and are often made use of in casting spells.[1]

All kinds of illnesses are by the Choroti considered to be caused by evil spirits. As yet, however, we know but little of these Indians' conception of the character and curing of different illnesses. Once Nordenskiöld called in medical aid from a medicine man among the Choroti, and this is how he describes the way in which the medicine man set about it:

'On many occasions, in the villages, I have seen the medicine men practising their profession. One day, among the Choroti, when I was feeling a bit seedy, I called one of those gentry to my camp. Giving out that I had a severe pain in the lower part of my chest, I asked him if he cared to cure me. He promised to come to me in the evening. At nightfall he arrived, accompanied by a colleague. They insisted on being left alone with me. Moberg and Andersson were consequently turned out, and sentries were posted so as to prevent anyone unauthorized gaining access to the hut. For a start, they made me strip to the skin, and then lie down. They stroked me with their hands over the chest, the sides of my body and the stomach, and then they spat on me. After that, they set to blowing on me, and then they laid themselves down and sucked hard at my chest, in particular at the spot where I had complained of the pain. After having sucked for a while, they turned away and pretended to vomit. Whatever they vomited up in this way, they did not show me, but, as they squeezed it between their fingers, it looked as if they had been squeezing worms. This performance lasted, I think, the

[1] See, for example, Nordenskiöld (13), pp. 93 and 98.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

make the throw with the right hand alone, leaving the left free to steer or direct the boat.»

In the mountainous districts and on the Peruvian coast it was in part no doubt the lack of wood suitable for making bows that made this a rare weapon, but also in part the advantage of having the left hand free while using the throwing stick.

The bow (Fig. 4) that is used by the Indians dealt with here, is very poor in comparison with the bows used by most of the Indians inhabiting N.E. Bolivia. The transverse section shows a very varying form. The two ends of the bow are sharpened to a point, and are not provided with notches to hold the string. Bows of this sort, without notches, seem to belong to a very old cultural phase in S. America, for we only find them in the extreme south, and among a small number of very primitive peoples in Bolivia and Brazil.

PATER SCHMIDT mentions the following tribes that have bows ending in a simple point without notches for the string: Botokudo, Bugre, Chamacoco, Saputki, Mataco, Toba, Angaité, Payaguá, Mbayá (Kadiuéo), Siriono, Pampas Indians, Mirana, Yanaperi and Uašmiri[1])

A few tribes have very indistinct notches at the end of the bow.

To the tribes enumerated by PATER SCHMIDT I can add, on the basis of archaeological material, the Indians in the Puna de Jujuy in Argentina[2]).

The bow-strings of the Choroti and Ashluslay Indians are made partly out of caraguatá fibres, partly out of strips of skin. Bowstrings of animal material are only found among the Indians in southern S. America as far north as the Chaco. (Map 2). In tropical S. America such bow-strings are unpractical and rare. Bow-strings of tendons or strips of skin

[1]) PATER SCHMIDT, p. 1033.

[2]) LEHMANN-NITSCHE (1) Pl. 2, fig. 3; pl. 3, fig. 16.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

process and the other procreative functions of the woman is realized. The attainment of puberty therefore for the Indian girl certainly means the beginning of her sexual life, but at the same time it means her entrance into a very critical epoch of development, during which she is often — especially at child-birth and during the following menses — exposed to supernatural dangers. Hence the initiation ceremonies at puberty have for their object partly her direct protection against these dangers for the time being, partly her purification once for all from the evils associated with her sexual functions during the years to come or — to express it more plainly — to *harden* her against evil spirits. From this point of view we have to regard all puberty ceremonies of the Indians, even such practices as painting, scarification, and tattooing of the body or face, often undertaken with girls on the attainment of puberty.

In the dances and conjurations performed in honour of girls at puberty it is the women who, contrary to what is generally the rule in religious ceremonies, play the most prominent part. Among the *Choroti* the puberty of girls is celebrated with a magical dance called *Káusima* after the instrument which the women use for it; the instrument is called *káhuis*. The *káhuis* is a dancing-staff, two or three meters in length, made of a light kind of wood or bamboo, which has a bunch of deer's hoofs tied at the top. These rattles produce a hollow sound when the staff is struck on the ground and are supposed to possess a mysterious power to influence the spirits. This power of course must be explained from the fact that to the Choroti the deer is a demoniacal animal. The *káhuis* staff is the only magical instrument used by the Choroti women and it is never handled by the men.

The dance begins at the first new moon after the appearance of the signs of puberty, because the moon is believed to cause and have great influence upon the menstruation of women. It is performed every day until the following new moon, sometimes even still longer. At a *Káusima* dance which I witnessed the arrangement was as follows. The mother of the girl and some other elderly women formed a circle, or rather an elliptic ring, outside the hut where the girl was, each holding her rattling dancing-staff. Close to the ring four medicine-men were sitting at equal distances from one another, holding their rattle gourds (*pelite*). There were besides two more medicine-men standing up, each provided with a drum. During the dance the women moved round ceremoniously with slow, regular steps, chanting loudly and marking time with their rattle staffs which they struck on the ground. The men outside the ring also chanted, shaking

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
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in their magical dances and conjurations the Indians as a matter of fact most often deal with these particular evil spirits.

These are features common to the religious beliefs of all Indians of the Chaco; indeed they are found among all South American Indians. But even in the Chaco this general belief in spirits appears in somewhat different forms among different tribes. The *Choroti* fancy that the spirits, *möhsek*, in their external appearance have the shape of old, withered men (*kihilahs*). They are, in the imagination of the Indians, provided with wings, which enable them to move rapidly through the air. Owing to their bird-like appearance the spirits are also called *ahuena* («the birds»). They are countless in number, mostly invisible, and as a general rule evilly disposed towards mankind. I never met an Indian who professed to have *seen* a *möhsek*, but nearly all say that they have *heard* their voices at night. One peculiarity of the demons of the Chaco Indians is that they only exist at night. As soon as darkness sets in the Choroti Indian fears mysterious dangers from the *möhsek*, who are then believed to draw near the villages in great numbers and even to enter into the huts, visiting the inhabitants with sickness and death. This is the reason why a traveller living with the Choroti can hear from some house nearly every night the low chant of some old man accompanied by the dull sound of the rattle gourd, *pelite*, with which he tries to conjure and keep off the supernatural pests. At daybreak however the spirits are supposed to leave for the forests and the plains — with a piping or whistling sound, the Indians explained to me, which they are very clever in imitating. For this purpose the Choroti use a special kind of round whistle which they generally wear hanging round the neck as an ornament. At their religious dances they produce, from time to time, shrill whistling sounds with these whistles, professedly with a view to conjuring the *möhsek*. The Indians believe that they can keep supernatural beings at bay by imitating them in their external appearance or their sounds.

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In the Chaco many weird sounds are heard at night which are apt to fill the natives with superstitious fear. The Choroti frequently told me about the »nightly whistling of the spirits» (*yap möhsek ahnäh*). The peculiar piping or whistling which is most often identified with the sound of the spirits is, I believe, produced by certain insects living on the stems or branches of the trees. The spirit of the tusca tree was specially mentioned to me, but this spirit is said to be a »good» being.

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The idea of the Choroti, that the spirits have the shape of old men, has given rise to a peculiar and cruel custom. They do not allow their

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2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

there are several evidences of a nature animism, although as a general rule only such objects and phenomena as especially strike their imagination or with which some remarkable incidents are connected, are incidentally or permanently looked upon as being animated by spirits. There are evil demons in the sky, which among other things cause such strange phenomena as eclipses of the moon, of which the Choroti have the same idea as the Mataco and most other Chaco tribes. Other evil spirits of the sky cause drought, which in the Chaco forms the greatest obstacle to a successful cultivation of the fields. The demons keep the rain back, and the Indians in consequence try, during the dry season, to conjure them by drumming, shaking rattles and chanting so as to compel them to release rain. On the other hand, there are demons operating in the violent thunderstorms, although these are generally accompanied by torrents of rain. The Choroti believe that thunder and the flash of lightning are caused by a great number of *mōhsek* who are rushing through the air and making an onset upon the village. These spirits are more often called *ahuéna*, »the birds», and thunder and lightning are therefore generally called by the Indians simply *ahuéna*, although the proper name in the Choroti language is *súntini*. Every time a burst of thunder is heard, the Indians, sitting in their huts, begin to shout and scream loudly, in order to frighten away the molesting supernatural visitors. There are evil spirits in the violent whirlwinds and sand-storms so common in the Chaco, as well as in the cold south wind, *niúk*, which during the dry season sweeps over the plains and produces rheumatism and chills among the natives, badly equipped as they are against cold weather. The warm north wind again, *úkine*, is sent by »good» spirits. Thus the radical contrast between the cold south wind and the warm north wind, both of which are sent by supernatural agents, has been to the Choroti the main reason for making a distinction between two of the four cardinal points.

Spirits, *mōhsek*, are also believed to animate *trees* and *plants* -- bad spirits poisonous and harmful plants, good spirits the beneficial and useful ones. The ideas which the Indians entertain about plant spirits and the customs to which they give rise, are substantially the same among all the tribes, and I shall presently give an account of them.

The Choroti also believe in *animal* demons. Thus they share the belief, held by all Indians in tropical and subtropical America, that a jaguar which attacks Indians or appears under unusual circumstances, is a »man-tiger» *i.e.* a man, generally a sorcerer, who has assumed the shape of this beast. Even in his lifetime a sorcerer may incidentally change

2: Karsten E-5 (1911-1913)1932 SI7 Matacc

Choroti SK 6

776 himself into a jaguar and, appearing in this disguise, kill people. Similarly,
754 an evil wizard is believed to be able to send his soul into a horse, in which
825 shape he will kill the person whom he wishes to bewitch. The horse in fact is the particular shape in which the tutelary spirit of a sorcerer is believed to appear, and is therefore looked upon as a demoniacal animal. Of other animals which are looked upon with superstitious fear the deer must be especially mentioned. This shy and innocent animal is regarded as an evil spirit, a *möhsek*, and its flesh is never eaten by the Choroti. On this point these Indians share a belief which, curiously enough, is met with among many tribes in different parts of South America. In the noiseless movements of this animal and the mysterious rapidity with which it disappears into the forest there is in fact something »ghost-like», which is apt to awaken superstitious awe in primitive minds.

754 Just as a sorcerer is supposed to be able to change himself into a jaguar
825 when he wishes to harm other people, so he is also believed occasionally to assume, for the same purpose, the shape of a venomous reptile, for instance that of a rattlesnake. The bite of a venomous snake is generally attributed to the mysterious operation of an evil wizard.

776 Of spirits inhabiting what we should call inanimate objects the spi-
823 rits of the *stones* are of particular interest. In order to understand the ideas which the Choroti entertain in this respect it should be borne in mind that in the interior parts of the Gran Chaco, and particularly in the country inhabited by the Choroti, stones are extremely rare or almost unobtainable. It is in part due to this fact that the Choroti regard stones and pebbles in general with superstitious dread and would never, for instance, put on a necklace in which a stone of some kind entered as a decoration. The reason which they gave me for this aversion was that an evil spirit, a *möhsek*, dwells in the small stone and would infallibly invade the person who hung it on himself. The explanation was, moreover, added, that when a sorcerer bewitches an Indian he avails himself of a pebble-stone which he throws against his victim making him fall ill and
[755] die. Similarly, when the medicine-man cures the patient, he extracts the disease-demon in the form of a small stone. In other words, stones are shunned because they form one of the magic arrows which the sorcerers use to kill or harm their enemies.

753 The theory which the Choroti have formed about *sickness* and *disease* has appeared from some of the above statements. Sickness, like epidemic disease, is always due to supernatural operation. It is caused by a demon, a *möhsek*, directed by a human sorcerer. Wizards cause sickness by

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

of older origin that conception of things supernatural, wherefore it follows that purely decorative art must be older that magic art.

In the course of time, ornaments have, from a variety of reasons, become attributed with magical properties, *without having, on that account, necessarily lost their character of being ornaments.*[1] At a still later stage it happens that the supernatural properties that once were ascribed to the objects are considered unimportant, and therefore by degrees fall into oblivion. Probably the Choroti will soon arrive at this stage of development in respect of their ornamental objects, and thus Karsten has rendered a very important service to science by having ›fixed‹, so to speak, this stage of the evolution of Choroti culture, even if he, as is my opinion, at times overshoots the mark by giving undue prominence to the magic side of the question.

Singing, dancing, drum-beating and rattle-shaking are by the Choroti regarded as potent in incantation and exorcism. This is a well known fact, to which I have also referred on pp. 182, 183 in my account of a funeral dance which took place in a Choroti village.[2] That blowing a kind of disc shaped whistle is done for the purpose of driving away evil spirits I have already mentioned (p. 144). As regards the supposed magical character of a game of chance called ›chuke‹, I also beg to refer to what I have said in the foregoing (see p. 155).

A popular belief, which is to be met with practically all over the world, is that the mental and physical force in man is in some supernatural way centred in the hair of his head. As an instance of this, Karsten refers back to the well known legend about Samson, the hero who lost his strength as soon as Delilah had shorn him of his hair. Among us Northeners, as among other European peoples, the belief has also existed

[1] It is, inter alia, from Stolpe's works — e. g. Stolpe (1) — a well known fact that these seemingly purely geometrical ornaments of primitive peoples often can be traced to symbolic pictography. But symbolic pictures may, in their turn, have been developed out of geometrical designs. »Von den Steinen is now of opinion that a whole group of so called geometrical ornaments have evolved from textile designs, but that they, in being transposed from plaited or woven work to other materials, and carried out in engraving or painting, then embarked upon an independent existence, finally carrying with them a whole series of the most varied pictorial ideas, according to the requirements of the artist's inspiration, and that these latter creations had no essential connexion with the original geometrical designs.« The passage within the quotation marks is a summary made by Seler of von den Steinen's opinion as regards certain ornaments. Seler (1), p. 48.

[2] Cf. also Karsten (4), p. 152 (1), pp. 14, 33 and 34 (2), bottom picture in plate following p. 33, and Nordenskiöld (13), pp. 89—91, and 105.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

826 that the hair in certain magic rites could represent the person from whom it had been taken.[1] We find a similar belief existent among the Choroti who, because of it, carefully burn the hairs that they cut off or pluck out. They also believe that the souls of the dead, as well as evil spirits, are [764] capable of working harm on the living by means of the hair, and on this belief is based the custom of the Choroti women of cutting off this adornment on the death of their husbands.[2] Similarly, the practice universally prevalent among the Choroti of plucking out eyebrows, eyelashes and other hairs of the face, the hairs of the armpits and about the genital parts, is probably due to this belief.[3] When a Choroti Indian takes a scalp, or fixes the scalp lock of a slain foe under his frontlet (see pp. 60, 61 and 103), it is probable that he considers that he has not only succeeded in obtaining a material trophy, but that the possession of the scalp or scalp lock to some certain extent confers upon him power over the spirit of his fallen adversary.[4]

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Fig. 185. Bone awl for blood-letting. Probably made out of an ulna of a puma. The awl is wrapped round with a red, woollen fillet, to prevent it from penetrating too deeply into the muscles. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 82.

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Fig. 186. Bone awl for blood-letting; also used for tattooing. Probably made from an ulna of a raptorial bird. The awl is wrapped round with grey and red woollen yarn (the latter nethermost) so as not to enter too deeply into the flesh. Choroti. Gran Chaco. Bolivia. 1/1. Riksm. 03. 3. 83.

In the foregoing (pp. 63 and 75) I have mentioned that the Choroti on certain occasions perform a kind of magic blood-letting by means of bone awls. I have also given an account of the Indian conception of the effects of this kind of blood-letting (see pp. 63 and 64). I will now add that I think it probable that the *material* of which the awl consists also plays a certain part.

Nordenskiöld has observed that the Ashluslay, when they are out looking for nests of wild bees, prick themselves above the eyes with a

[1] Even as early as in the Wærend law, mention is made of hair being used in witchcraft.
[2] See page 182.
[3] Karsten (4), p. 10.
[4] Cf. Karsten (4), p. 60.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

wooden awl, so that blood flows.[1] In reply to my question, Nordenskiöld has been kind enough to tell me that he never saw the Indians using awls of any other material than wood for this purpose. On the other hand, both he and I, and other Chaco students, have seen Choroti pricking themselves with bone awls (figs. 185 and 186) when feeling tired. In order to ascertain whether the Indians in making their bone awls gave preference to any particular bone of any particular animal, I asked Professor Lönnberg to try and identify the animals from which the material had been taken for all the bone awls in my collection. Professor Lönnberg very kindly acceded to my request, and here below I give the result of his investigation.[2]

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» » 03. 3. 82. » » » left » » » feline animal, probably a young puma.
» » 03. 3. 183. » » » » » » » » (somewhat smaller than the foregoing).
» » 03. 3. 84. Lower part of canon bone of small ruminant (deer calf?).
» » 03. 3. 184. » » » » » » » »
» » 03. 3. 185. » » » » » » » »
» » 03. 3. 83. Probably a fragment of ulna of a bird (raptorial?)
» » 03. 3. 186. » » » » » » » » of a species somewhat smaller than the foregoing.

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[1] Nordenskiöld (13), p. 49.

[2] In accordance with letters dated July 3 and 18, respectively. Rockefeller collection of Manuscripts, Volume 1931, letter 1..

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SKb

761 body the patient will die, *i.e.* his soul will be compelled to leave its abode. The exertions of the medicine-man again are aimed at expelling the evil intruder.

755 To conjure a disease-demon, that is, to expel it from the body of the patient by incantations and other magical means, is in the Choroti language called *apáhu*. The conjurations nearly always take place in the night or after darkness sets in. This is due to the idea, referred to above, that the night is the special time of the evil spirits. The natives of the Chaco are strengthened in this belief by the fact that catarrhs and other ailments from which they suffer are as a rule worse during the cold nights, whereas in the day-time when the sun is spreading warmth they are less felt. The treatment of the patient takes place outside the hut, generally under a shady algaroba tree, the place where the men assemble for their meetings and drinking-feasts.

The procedure is always about the same. The medicine-man begins his treatment by spitting and blowing vigorously on the particular spot of the body where the evil is seated, and this action is from time to time repeated. This is done to »disinfect» the spot and to prepare it favourably for the extraction of the »arrow». Beneficial purifying effects [827] are commonly ascribed to the saliva, and a medicine-man's saliva is particularly sacred, being imbued with the magic power which fills his whole body. Thereupon the conjuration proper begins. The »doctor» leans over the patient, closes his hand so as to form a tube, puts it on the sick spot and starts to sing, in a low muttering voice, a monotonous chant, ejaculating certain powerful words addressed to the evil demon. The chant mostly consists of refrains; it is evident that the efficacy of the conjuration is mainly ascribed to the voice itself and the breath of the curer, as well as to the very rhythm of the chant. The words or phrases uttered by the Choroti medicine-man are very stereotyped; in fact, they almost invariably seem to consist of the words: *náuhea, náuhea, hiame, hiame . . . náuhea, náuhea, hiame, hiame . . .* incessantly repeated, and only interrupted by the blowing, spitting, and other manipulations. Both words belong to the particular terminology of the medicine-men: *náuhea* means »at night», and *hiame* »go away!» The whole conjuration may thus be translated into: »When night sets in, go away, evil demon!» The phrase has reference to the fact that the evil spirits which cause sickness are believed to move about especially at night, and the doctor is trying, by his conjuration, to prevent the demons from coming back at that critical time to molest the patient. Exactly the same idea appears

2: Karsten E-5 (1911-1913) 1932 SI7 Mataco SI7
Toba SI12
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tion to the men shaking rattles, one or more Indians are beating drums and chanting. These noisy ceremonies are continued with short intervals during the whole night. When one party of Indians are tired and stop to rest for a moment, they are relieved by another party, since it is considered very important that there should be no interruption in the ceremonies, otherwise they would lose something of their effect. In the early morning the danger is believed to have passed; the fermentation has taken place, and the evil spirits have not been able to approach the drink and spoil it.

Although this negative object of the rites is particularly emphasized by the Indians, they also have a positive object which is indicated by the very expression »hurry on the fermentation». As we have already seen, the fruit of which the drink is made is believed to be animated by a spirit, and it is the same spirit that is active in the fermented, intoxicating beer. The rites described, while they are supposed to keep off evil spirits, are also intended to influence magically the plant-spirit itself and to bring it to its highest point of development, which is marked by the fermentation. This is partly effected through the chanting, the shaking of rattles, and the drumming, partly through the procedure of mixing the mashed fruit with saliva. The saliva really has the property of bringing about fermentation, and this phenomenon is explained by the superstitious Indian as due to the supernatural virtues which this secretion is believed to possess. Even the fact that only *old* women chew the fruit is probably not accidental. Old people have by nature a stronger magical power than the young and their saliva has therefore greater efficacy.

The Chaco Indians not only try to promote the growth of the fruits by shaking rattles and drumming, but also by *dancing*. Thus the Toba dance *Nahát dónnaran* is not only performed in cases of sickness, but also with a view to »hurrying on» the chanar fruit (*niapilák tákkai*). Once I witnessed such a ceremony. The chañar fruit — next to the algaroba the most important of the fruits growing in the Chaco forests — reaches maturity in the month of October and forms the staple food of the Indians during that month. The dance was performed in the following way. The fruit gathered in during the day was spread out on cloths or big hides on the ground outside the houses, where they are generally laid to dry. The dance took place at night. A young man began to dance alone, stamping alternately with his feet on the ground, without using any rattle and chanting at first in a low voice. Gradually his movements

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

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Chapter XVII.

Magical ornaments and amulets.

In my *Civilization of the South American Indians* I have shown that most Indian ornaments have originally had a purely magical significance, although among tribes affected by European culture they have gradually lost this significance and become real »decorations». Among the Chaco Indians also this course of development is conspicuous, for instance with regard to tattooing, body-painting, and the majority of other personal ornaments. The principles of *tattooing*, as it is practised by the Choroti, Mataco, and Tobas, have been set forth by me in a previous chapter.[1]) Tattooing is first of all closely related to scarification and bleeding, customs quite commonly practised by the Indians in all parts of South America. Blood-letting is in itself regarded as a method of purifying the human organism from evil and impure spirits. The spirits are supposed to enter the system, and especially to mix in the blood, thus giving rise to ailments of different kinds and to a state of weakness in the particular part of the body to which they have attached themselves. The Indian thinks that by bleeding that part he will rid himself of the dangerous intruder, just as he sometimes thinks it will leave his body with the mere perspiration, and this belief is naturally supported by the fact that in certain cases such purgations may really give some relief. The Chaco Indians are quite familiar with this idea. Thus among the *Choroti* it is a common thing for the men to bleed themselves with a sharp bone obtained from a certain »magical» animal or a splinter of a certain wood before certain important undertakings. Thus they say that, by drawing blood from the arm, the limb will get more strength for pulling the bow; the practice is therefore especially

M 789

M 783 827

C 783 827 224

[1]) See *supra*, pp. 89 sq.

[p. 179]

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

resorted to before going out on a hunting expedition. If the arms fails or trembles in pulling the bow, its weakness is, according to the idea of the Choroti, due to the presence of a *mohsek* in the blood; and they think that the evil demon will leave the body with the blood drawn. The same custom is practised by other tribes of the Pilcomayo. Thus Nordenskiöld noticed it among the Ashluslay, although he did not understand its real meaning. After a trying fishing or hunting expedition, he says, the Indians may be seen to pierce their arms and legs furiously with hard wooden splinters, so that the blood flows in streams; and in order to get a keener sight to find the nests of the bees they likewise prick themselves above the eyes. In both cases the idea evidently is that the demon which causes the weakness or fatigue will be driven away from the body and perhaps killed with the pointed instrument.

The scars left by the cuts are tended with care and shown with satisfaction, indeed with pride. The Indians showed with apparent satisfaction even those cicatrices which the *palometa* fishes had inflicted on their body with their sharp teeth when they were bathing in the river. It is clear that according to the idea of the Indians not only the bleeding purges the body from impure matter and strengthens the limbs, but that the very scars which remain after the operation possess some mysterious power to keep off evil influences, a power which is much the same as that ascribed to real tattooing marks. This Indian view is especially conspicuous in regard to an operation which the whites sometimes perform upon Indians who have come in contact with European civilization, namely, vaccination. I could myself appreciate the extraordinary importance ascribed to scars when during my stay at Esperanza I vaccinated a number of Chaco Indians who were employed as labourers at the sugar factory. The Christians probably have no remedy which the natives understand so well as this one, and they therefore as a rule submitted to the vaccine inoculation without remonstration, in fact, with pleasure. The small indelible marks which remained were regarded with wonder and admiration, and it was perfectly understood that they were a sort of warranty that the terrible disease would not attack the person wearing them.

Of all personal ornaments *body-painting* is the most important. All Chaco tribes practise it, and men and women alike. In the Chaco, as in other parts of South America, body-painting is essentially a custom of magical significance, as one can easily find out by considering the circumstances under which it is practised. The favourite colour of the

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

776 [764] character.[1] When there has been a death in a village, certain precautionary measures have to be taken in order that the spirit who caused the death may not in some way or other work further evil.

But also on all other possible occasions the spirits are capable of working harm, indeed, Karsten is of opinion that the Indians, even when doing such commonplace acts as eating and drinking, fear that malicious spirits may surreptiously effect an entrance into them along with the food or drink.[2] That the Indians have this belief is not so very remarkable. Similar conceptions are to be found among many peoples in different continents, and have also been widely spread in Europe. To mention one instance; in olden times on yawning or sneezing there was the custom of making the sign of the cross before the mouth, a custom founded on the fear that the devil or some of his kindred should slip in through the open mouth.

751 As a means of protecting themselves against evil spirits, or for securing, in a magical way, other advantages, the Choroti make use of a variety of devices, the most important of which are the covering of the body, painting of the face, dyeing textiles and other objects red, tattooing, wearing of amulets and certain ornaments, singing, blowing of whistles and shaking rattles, beating of drums, dancing, games of hazard, cutting or pulling out of hairs, and blood-letting.

The custom, previously mentioned, of the girls at their first menstruation keeping their heads covered with a cloth, is an instance of the first-mentioned magical means of protection.

302 751 At dances and lovers' meetings the Indians paint their faces (see page 78), but they adorn themselves by face-painting also on other occasions. As an instance, men as well as women usually had their faces painted when visiting us in our camp. At the time we took this to be a manifestation of Indian vanity, but after having read Karsten's detailed account of the reasons for painting the face among the Indians, I am more inclined to the belief that this painting had been applied as a protection against such unknown spirit forces as might possibly threaten them in the camp of the whites.

831 302 751 That painting of the face is done at dances and meetings of a sexual character, is a circumstance connected with the Indian belief that occasions

[1] Karsten (1), p. 36, and (4), p. 17.
[2] Karsten (3), p. 205.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

of that kind are especially apt to make it easy for the spirits to acquire possession of human beings. When a woman paints her face, that fact may, therefore, indirectly constitute a sign that she desires sexual intercourse, although the painting may perhaps have been done for the magical reasons above indicated.[1]

On page 58 I have remarked that on a reed-casing for keeping ostrich plumes the holes and the edges of the lids were painted red. This red-painting cannot very well be of a decorative character, seeing that there is not much of the paint visible when the lid is closed. According to my opinion, it is very probable that the paint has been applied in order to protect the delicate ostrich plumes contained in the casing from sustaining harm from evil spirits. The fact is that there is, among the Indians, a wide-spread belief that decay and similar processes are caused by evil spirits, on account of which it has been customary among certain Indian tribes to paint not only corpses but also grave equipment with red paint for the purpose of preservation against decay. And we also possess positive evidence that among certain Indian tribes the custom prevails of providing the property of the living with a similar magically protective, painting.

When through Karsten's paper on Indian conceptions as to the significance of painting,[2] my attention had been drawn to these circumstances, I took to examining most of the objects I had found as grave furniture at Quebrada del Toro and Puna de Jujuy (Argentina) in order to ascertain whether any of these objects had been painted before being put with the dead.[3] This examination revealed that nine wooden objects seemed to be painted all over with red paint, but as I, owing to the objects having lain such a long time in the ground, was unable with certainty to decide whether these objects really were painted, or whether their red colour was due to the natural colour of the wood, I had the objects in question submitted to chemical examination. It was then established that the objects were painted, and that the paint consisted of ferrix oxide, almost pure,[4] (so therefore not uruku, which is prepared from Bixa Orellana).

[1] Cf. Karsten (4), Chap. I.

[2] Karsten (4), Chap. I.

[3] As a result of the fact that all the ethnographical and archæological collections of the Riksmuseum are stored in most unsuitable premises, it has not been possible to find all of the objects.

[4] Analytical report No. 211954, Chemico-Technical Bureau (Kemiska Tekniska Byrån).

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

535 centres on them. It is for them that they paint and deck themselves out.
302 At these balls the young Indian tries to appear as elegantly apparelled, as originally painted and decorated, as possible. Each day he paints himself after a different fashion, and arranges his ornaments differently. — These gentry, upon growing into older, staid, married men, no longer adorn themselves for ball parties, but only for war. — As to the Choroti girls, I have often seen them anointing their bodies with fish oil, which imparts to them an unpleasant smell. Their own opinion on this point is
[832] no doubt a very different one. To their thinking, we Europeans have an offensive cow smell. The level of elegance affected by the men is never
535 attained by the women. Still, they are, however, able to make the consoling reflection that it is, anyhow, in the first place for their sake that the lords of creation spend several hours of the day on their toilet.

»As has been said, it is in dancing that the whole interest of the young men and the young women centres. When the sun has set, then it begins. In a circle, or in a single rank, the men dance, marking the time by singing, may be: 'Tãe-a-sa-lé, tãe-a-sa-lé'. As the rhythm of the singing is slow or quick, so is the dancing. Music is a thing unknown at these
[533] dances. The chants that are sung are untranslateable refrains, which often are international, i. e., are used by many different tribes. The girls dance behind the men. Among the Choroti Indians it is the girl who takes the
[832] initiative in the matter of amatory ventures. She simply carries off with her, from the ball, any particular young man whom she may want as her lover for the night. These dances made a grand spectacle, as the moon, or a bonfire of pampas grass, shone on the gleaming bodies, I have seen as many as a hundred men form a dancing circle. At times the dance went quite slowly; at times it would go at a breakneck speed, raising clouds of dust, so that all one could see was a whirling melée of bodies and waving ostrich plumes.«

535 Of the dances of the Chaco Indians,[2] those that are obviously magical
789 are mainly performed as ceremonies of exorcism against dreaded spirits who have it in their power to cause illness or death; according to Karsten, magic dances are also resorted to in order to enhance the supply of wild, edible fruits.[3]

[1] Extract from Nordenskiöld (13), pp. 73, 75—77, and 79.
[2] Karsten (1).
[3] Karsten (4), pp. 25—28.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

CHAPTER VI.

The Choroti (6). Family Life and Social Organization. Superstition. Illness and Death.

Marriage customs. Division of labour. Chiefs. Medicine men. Belief in evil spirits. Magic means of protection. Illness. Exorcism. Fairy tales. Physical therapeutics. Death. Burial. Belief in a future existence.

A Choroti man, as a rule, has only one wife, but among the part of 595
the tribe that has been in close intercourse with the Chiriguano, it is not an uncommon thing for the chiefs to possess several wives, as, for instance, the chief of the Choroti Indians living in the neighbourhood of Tatarenda (close on the border of the Chiriguano country), who had no less than three spouses. In fig. 178 is seen this chief holding one of his sons by the hand; to the left of the boy there is the chief's »number-one» wife, grown old and ugly, and on the man's right is his second wife, the mother of the boy. His third wife, who is not included in the picture, was quite a young girl.

Among the Choroti it is the women who take the initiative in amor- 832
ous relations. As a rule, this is done at dances which take place in seasons when food is abundant, and the Indians accordingly find it fitting to dance and amuse themselves. In his book »Indianliv», Nordenskiöld has given a very vivid description of such nocturnal mating dances, and in the preceding chapter I have (pp. 149, 150) quoted from him.

When a girl has reached mature age, she enters into free and un- 836
restricted relations with now one, now another, of the men, but finally she finds for herself a partner for life (see fig. 179). Having once taken this step, she usually keeps faithful to her husband. If a Choroti girl should happen to become pregnant, she sets about procuring abortion, and in [847]
that way she as a rule avoids having any children before becoming a

wife. [p. 159]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

wife. Not infrequently it happens that two or more girls become enamoured of the same man. Then fierce fights are often fought out between the rivals, who in these encounters sometimes use knuckle-dusters or sharp-pointed bone awls (see fig. 111). The Choroti girls have a somewhat peculiar way of demonstrating their tender feelings towards their beloved; they do not kiss him, but scratch him with their nails and spit in his face![1]

When a woman has been taken to wife by the man she has chosen, the latter comes to live in her village, at least for some period of time.[2]

Division of labour as between the sexes among the Choroti.

M = men; W = Women.

Rearing and care of livestock	M[3]	W[3]
Fire kindling, by drilling	M	
Collecting fuel		W
» wild growing, edible plants		W
» wild honey	M[3]	
Hunting and catching game	M	
Preparing the food	M[4]	W
Cultivation of food plants	M	W
Wool and cotton spinning		W
Sewing	M[3]	W[3]
Manufacture of feather ornaments	M	
» » articles of calabash	M	
» » pottery		W
» » articles of leather	M	W[3]
» » fishing nets	M	
» » articles of wood	M	
» » weapons	M	
» » bags, knitted of caraguata yarn		W
» » » » » woollen »		W
Load carrying		W
Hut building	M	W
Weaving		W[3]
Drawing and carrying water		W
Beer brewing	M[5]	W[3]

The heavier burden of work undoubtedly falls to the lot of the women. It is their business to gather edible fruits, to carry home fuel and water, to prepare the food, and, of course, also to tend the children. When the tribe is travelling, it is the women who carry the household furniture and

[1] Nordenskiöld (13), p. 81.
[2] Nordenskiöld (13), p. 83.
[3] According to Nordenskiöld (13), p. 87.
[4] Roasting the food. According to Nordenskiöld (13), p. 87.
[5] Beer fermenting, only. According to Nordenskiöld (13), p. 87.

[Text continues on p. 163]

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK 6

and ornaments, wearing many-coloured mantles, necklaces, ear-tubes, big ostrich plumes on the head, and having the face painted. The men form a circle round the girls with arms interlaced round each others' waists. The dance chiefly consists in jumping with both feet at once and stamping hard upon the ground to the measure of a very noisy but monotonous chant. The ceremony is called *níssammaha aséhne*, »to hurry on the girls». The expression »to hurry on» (*níssammaha*), as we shall find later, is used by the Chaco Indians in many cases where there is a question of magically influencing the course of nature for good and useful ends. Just as the Indians believe they can hurry on or promote the growth of the fruit by influencing the tree spirits and by exorcising the evil demons who are trying to blight them, so they »hurry on» the girls in the sense that by the dancing and chanting the latter are prompted to make a definitive choice of a husband, whereas at the same time evil spirits are kept away from them. Courtship and marriage, it should be noted, are of those numerous critical occasions in human life when malignant supernatural powers are believed to be more than otherwise on the alert to do harm and spoil the good designs of men, and as usual the weaker sex is supposed to be particularly exposed to them. The courting dance *Avúshe* is thus in part held with the intention of keeping off this invisible molestation, so that the girl's choice of a consort for life may take place under good auspices.

A man who is not taken away from the dance by a girl has no possibility of getting either a temporary paramour or a wife. The matter wholly depends on the girls, and there are of course always men who for one reason or another are despised. I sometimes noticed such unfortunate lovers at the Choroti dances. Their experience had led them not to take part in the dances; they were sitting in a hut close by, eagerly shaking the rattle gourd (*pelíte*), as they said, »to hurry on the girls» and thus possibly to have better luck in the future. Since the women are much fewer in number than the men, it is necessary that some men are obliged to remain bachelors all their lives. These men were ridiculed not only by the women but also by their more fortunate brethren. On the other hand, there are no unmarried women, and even widows soon remarry unless they are very old.

The men may try to attract the girls at the dances by their beautiful ostrich plumes, necklaces, and other ornaments, but these means of attraction certainly only play a subordinate part. The Choroti woman evidently expects something more of a man whom she thinks of marrying

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Fig. 179. A girl, and the lover she has chosen for herself. Choroti. Gran Chaco, Bolivia. Photo. E. v. R.

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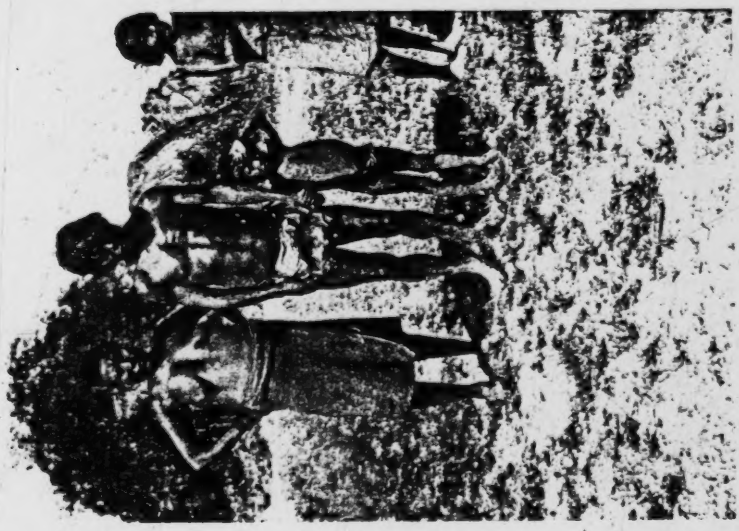

Fig. 178. A chief, with his son and two of his three wives. Choroti. Gran Chaco, Bolivia. Photo. E. v. R.

[p.162 is blank]

2: Karsten E-5 (1911-1913)1932 S17 Mataco

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584 the Indians live a happy and joyous life. We may therefore say that this is the proper »pairing-season» of the Chaco tribes, and particularly of the Choroti. At other times of the year, when fruit becomes scarce and life to the Indians is often a hard struggle for existence, they are little inclined 584 for merry-making, love, and marriage. In October, when the very nutri- tive chañar fruit ripens, the Chaco Indian is, as it were, revived, and a 535 few weeks later, when the algaroba and the tusca trees give their much ●836 appreciated fruit, his life is at its gayest, manifesting itself of course in his sexual interests also. Those young men and women who want to be married then wander about from one village to the other, where dances take place. In each village three dances, those called *Jóhlōki*, *Ahlénta*, and *Avúshe*, are performed on four successive evenings. Free sexual intercourse is connected with these dances, and the girls play an important rôle in them although they do not actively take part in the entertainment. The dances of the Chaco Indians are mainly entertainments of the men. The girls generally content themselves with merely looking at the dancing youths, making their choice among them. Incidentally however a girl may be seen dancing for a while behind a man whom she particularly likes with her hands laid upon his shoulders, and after the dance she takes him away and keeps him for that night. This is something one may notice after each dance, and thus the Choroti dances during the »season» often have the character of real sexual orgies. The last *Avúshe*-dance on the fourth evening is, however, supposed to be decisive as far as marriage is concerned; those girls who have found the men whom they want to marry then keep them not only for the night, but for ever. The young man is taken to the village and house of the girl where he stays as her husband, becoming a member of his wife's family.

584 The *Avúshe* may therefore be called the proper courtship and marriage dance of the Choroti. The very name of the dance is interesting from this 535 point of view. The Choroti word *avúshe* means 'vulture' — not the black vulture, but another kind common in the Chaco[1]) — and the name therefore may be translated as »the Vulture-dance». The idea of the Indians seems to be that just as the vultures jump and dance round their prey, the dead animal, so the Choroti men in the *Avúshe* dance jump round the girls trying to »conquer» them. The girls at this dance, it should be understood, stand within the ring formed by the dancing men. All the young men who take part in the dance are dressed in their best clothes

[1]) *Polyborus vulgaris.*

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
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very qualities which the Indians appreciate in their leaders. He was valiant, cunning, and eloquent, and, being a great warrior, had provided his people with firearms which made the Tobas superior in war to all other Chaco tribes and dangerous enemies even to the whites.

The Eakachi, as is customary in the Chaco, hold their assemblies under a shady algaroba tree, generally at the time of the new moon. Besides watching the conduct of their chiefs, they have to deliberate questions of war and peace and to appoint an extraordinary chief when an attack against an enemy is planned. In addition, they act as judges or arbitrators in quarrels and fights between the men.

A social feature characteristic of all Chaco tribes is the relative matriarchy or »mother-right» prevailing among them. Descent is traced through the female, the child being supposed to belong to the mother's, and not to the father's, tribe or clan. Closely connected with this idea is the custom prevailing among most matriarchal peoples, that when a man marries, he stays with his wife's family, becoming a member of her clan. All these features are found among the Pilcomayo tribes, but particularly among the *Choroti* where »mother-right» has developed into real mother-rule. Thus in those parts of the Choroti country where they are neighbours with other tribes and intermarriage takes place, it is the rule that if the woman is of the Choroti tribe the children become members of that tribe, whereas, if a Choroti man marries a woman of another tribe, he himself and the children become members of that tribe. This was particularly noticeable in regard to the Ashluslay in the South with whom the Choroti frequently intermarry. Thus the »great chief» of the Choroti living near the fort Guachalla, the old Atamo, was on his father's side of Ashluslay descent, but his mother being a Choroti woman he had himself become a Choroti.

The »mother-right» of the Choroti is not carried to such an extreme that for instance the maternal uncle or some other relative on the mother's side is regarded as the guardian of the children. Among the Choroti both parents are the guardians of the child although, as in other matters, the mother has always more to say. Nor does it imply that parentage is wholly attributed to the mother. On the contrary, the custom of couvade, as it is observed by the Choroti, shows that this maternal people is well aware of the father's great rôle in the procreation of children. The »mother-right» of the Choroti and of other Chaco tribes is in fact only a secondary phenomenon, evidently dependent on the social conditions which have developed among the tribes in this country, and which in their turn

2: Karsten E-5 (1911-1913)193? SI7 Mataco SI7

Choroti SK6

ease, without suffering much pain. From the point of view of the savage it is of special importance that this should be so. As the *Choroti* explained the matter to me: if at the birth the woman is ill, this is due to her being possessed by an evil spirit and the demon, owing to the close connection between mother and child, will also take possession of the latter causing it to fall ill and die. Hence the weakness and sickness from which possibly she is suffering must be concealed and reasoned away. The Choroti have a stereotyped phrase to express this: *lasĭhe ĭse lóuet = lahse ihe, eis lóuet*, that is: »when the child is born, the mother is well». As a matter of fact, a few hours after the delivery the Choroti woman is seen to move about doing some small tasks in the house, fetching water, preparing food, and so on. In short, she acts as if she were quite hearty, thus deceiving herself, her relatives, and the evil spirits. But the curious thing is that among the Choroti the *father* of the child, seemingly instead of the mother, lies in bed, looks weak, fasts, and is attended by the women, in short, behaves just as if he were the person who had given birth to the child and were suffering pains. The precaution which the woman shares with her husband, in addition to abstaining from hard work, is that she has to diet. Like him she avoids meat, limiting her diet to boiled and mashed maize, the leaves of certain trees and certain other vegetables.

This is the custom generally known under the name of *la couvade* (»hatching») and which among the Choroti exists in its most typical form. The father remains lying in bed for five or six days, or *until the navel-wound of the child is perfectly healed*. The reason for this is quite obvious and was, besides, expressly pointed out to me by the Indians. The navel-wound may become a dangerous source of infection, and the new-born child is in its most delicate condition during the first days or until the navel-wound is healed.

Before I give further explanations of the ideas underlying the couvade practices I shall say a few words about the birth customs of the Mataco and the Tobas. These tribes do not practice couvade in the proper sense of the word, but they have the same ideas about an intimate connection existing between the new-born child and both parents.

What I have stated as to the birth customs of the Choroti also holds true of those of the *Mataco*, with the exception that the Mataco father does not actually lie in bed. He has nevertheless to take certain precautions, and the fact that he pretends to be in a delicate condition during the first critical days of his child's life is shown by the expression the Mataco use of him. He is said to have an *aíttah limpáh*, that is to say.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco

Choroti SK6

their rattle gourds, whilst the men provided with drums beat them. The girl in whose honour the dance was held was standing motionless and silent at the entrance of the hut reclining against the wall and had to remain so during the whole ceremony. Sometimes, when towards evening she got tired and was on the point of falling asleep, one of the medicine-men came up to her and shook his rattle close to her face as if to keep her awake. The ceremony began in the afternoon and was continued with short pauses throughout the whole evening until midnight. I was informed that as long as the dance goes on the girl need not be veiled, but as soon as the conjuration is finished for the night she must have her face and her whole body well covered. During the whole period that the dance is performed she is moreover obliged to fast, avoiding fish and meat and living only on some light vegetable food.

I may add that all the men who took part in the ceremony were painted on the face in one way or another. Some of them simply had the face coated red with roucou or black with charcoal, whereas others had X-shaped or other patterns painted on the cheeks. The men's faces are always painted in this way at the conjurations of the Indians, and these paintings have a purely magical significance.

The drinking of algaroba beer also forms part of the magical practices at the feast, but it is strictly limited to the men.

The object of all these ceremonies is to protect the girl against the evil spirits, the *möhsek*, by which she is believed to be particularly attacked during her unclean condition. The spirits try to enter into her through the face — especially through those parts where there is a natural opening of the body, such as the eyes, the ears, the nose, and the mouth — and also through the ventral parts, the consequence being, if they succeed in doing so, that she will fall ill and die, or become supernaturally pregnant and give birth to a monster. It is in this way that the Indians account for the birth of those deformed children which they kill directly after birth. To prevent such frightful accidents the girl's head and body are covered after the conjuration is finished for the night. By means of the dancing, chanting, drumming, etc. the evil demons who take an interest in the girl and swarm about her are conjured and rendered harmless. According to the idea of the Indians she is not only protected for the time being against their attacks, but she will also retain a certain power of resistance against them in the future.

The puberty of a girl is not celebrated in all cases among the Choroti with so many ceremonies as in the case just described, but the

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7
Toba SI 12
Choroti SK 6

very qualities which the Indians appreciate in their leaders. He was valiant, cunning, and eloquent, and, being a great warrior, had provided his people with firearms which made the Tobas superior in war to all other Chaco tribes and dangerous enemies even to the whites.

The Eakachi, as is customary in the Chaco, hold their assemblies under a shady algaroba tree, generally at the time of the new moon. Besides watching the conduct of their chiefs, they have to deliberate questions of war and peace and to appoint an extraordinary chief when an attack against an enemy is planned. In addition, they act as judges or arbitrators in quarrels and fights between the men.

A social feature characteristic of all Chaco tribes is the relative matriarchy or »mother-right» prevailing among them. Descent is traced through the female, the child being supposed to belong to the mother's, and not to the father's, tribe or clan. Closely connected with this idea is the custom prevailing among most matriarchal peoples, that when a man marries, he stays with his wife's family, becoming a member of her clan. All these features are found among the Pilcomayo tribes, but particularly among the *Choroti* where »mother-right» has developed into real mother-rule. Thus in those parts of the Choroti country where they are neighbours with other tribes and intermarriage takes place, it is the rule that if the woman is of the Choroti tribe the children become members of that tribe, whereas, if a Choroti man marries a woman of another tribe, he himself and the children become members of that tribe. This was particularly noticeable in regard to the Ashluslay in the South with whom the Choroti frequently intermarry. Thus the »great chief» of the Choroti living near the fort Guachalla, the old Atamo, was on his father's side of Ashluslay descent, but his mother being a Choroti woman he had himself become a Choroti.

The »mother-right» of the Choroti is not carried to such an extreme that for instance the maternal uncle or some other relative on the mother's side is regarded as the guardian of the children. Among the Choroti both parents are the guardians of the child although, as in other matters, the mother has always more to say. Nor does it imply that parentage is wholly attributed to the mother. On the contrary, the custom of couvade, as it is observed by the Choroti, shows that this maternal people is well aware of the father's great rôle in the procreation of children. The »mother-right» of the Choroti and of other Chaco tribes is in fact only a secondary phenomenon, evidently dependent on the social conditions which have developed among the tribes in this country, and which in their turn

2: Karsten E-5 (1911-1913)193? SI7 Mataco SI7

Choroti SK6

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

CHAPTER VI.

The Choroti (6). Family Life and Social Organization. Superstition. Illness and Death.

Marriage customs. Division of labour. Chiefs. Medicine men. Belief in evil spirits. Magic means of protection. Illness. Exorcism. Fairy darts. Physical therapeutics. Death. Burial. Belief in a future existence.

A Choroti man, as a rule, has only one wife, but among the part of 595
the tribe that has been in close intercourse with the Chiriguano, it is not an uncommon thing for the chiefs to possess several wives, as, for instance, the chief of the Choroti Indians living in the neighbourhood of Tatarenda (close on the border of the Chiriguano country), who had no less than three spouses. In fig. 178 is seen this chief holding one of his sons by the hand; to the left of the boy there is the chief's »number-one» wife, grown old and ugly, and on the man's right is his second wife, the mother of the boy. His third wife, who is not included in the picture, was quite a young girl.

Among the Choroti it is the women who take the initiative in amor- 832
ous relations. As a rule, this is done at dances which take place in seasons when food is abundant, and the Indians accordingly find it fitting to dance and amuse themselves. In his book »Indianliv», Nordenskiöld has given a very vivid description of such nocturnal mating dances, and in the preceding chapter I have (pp. 149, 150) quoted from him.

When a girl has reached mature age, she enters into free and un- 836
restricted relations with now one, now another, of the men, but finally she finds for herself a partner for life (see fig. 179). Having once taken this step, she usually keeps faithful to her husband. If a Choroti girl should happen to become pregnant, she sets about procuring abortion, and in [547]
that way she as a rule avoids having any children before becoming a

wife. [p. 159]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

arrived at this plantation to look for work. Led by their chiefs, they had made the long journey from the region of their homes. The chiefs, some of whom had met us in the Chaco, whilst others had only heard of us, wished to pay us a call. Personally I do not possess any notes about this reception, but I have come across some in Fries' diary. He thus refers to the incident: »When the Choroti Indians, whom we knew from Tatarenda and who were now working here, saw us, they came, almost to a man, and greeted us, being evidently very glad to meet us again. *The principal chief, at the head of all the lesser caziques*, was among those who came and paid us their respects.«[1]

A favoured position in the village community is that held by the medicine men; for their services they are rewarded by a — from a Choroti point of view — generous remuneration in the form of food and drink. That among the Choroti the medicine men are held in great esteem, and that everybody is anxious to be on good terms with them, appears only natural to anyone with a knowledge of what an important part magical conceptions play with these Indians. It is largely by the Finlander explorer, Rafael Karsten — oft-quoted in the present work — that ethnological science has been enriched by information and detailed reports on the magical customs and practices of the Choroti, as well as of other Chaco tribes.[2]

The Choroti Indians believe that man, all his life through, is more or less subject to influences from spirits, who, on the whole, are of a harmful nature. Especial danger is to be apprehended from spirits on certain occasions such as child-birth, pubescence and death. Usually the evil is worked by a spirit, »mohsek«, entering a person through one of the orifices of his body and thereby assuming possession of him. If at birth a child is deformed or very sickly, it is supposed to be possessed by some evil »moshek«, and is on that account killed.[3] When a girl has attained the age of puberty, during the first critical, time she must keep a covering over her head, so that no evil spirit may be able to enter her body by way of her nose, mouth, eyes or ears.[4] The occasion of a girl attaining puberty is celebrated with a dance which undoubtedly is of a magical

character.

[1] Professor Robert Fries: diary, X, p. 14. Italics by von Rosen.
[2] See Bibliography attached.
[3] Karsten (4), p. 176.
[4] Karsten (4), p. 165.

2: Karsten E-5 (1911-1913)1932 SI7 Mataco SI7

Choroti SK6

are due — at least in part — to geographical causes. As to the Choroti, it is to be noticed that among them the women in general have great social importance, to such an extent in fact, that we may speak of a real gynaecocracy. This is in the first place due to the numerical disproportion between the sexes which, at least at present, exists in this tribe. The causes of this phenomenon are difficult to assign; there is for instance, no general custom of killing new-born female children which would account for it. Infanticide is indeed practised in the case of monstrous children and twins, but it has reference to male children as well as to female. Female children are appreciated perhaps more than male children, for the very reason that women are so few in the Choroti society. Whatever the real cause of the numerical paucity of the women, it is this fact which explains their social influence. Besides this, we have to take into consideration the strict division of labour between the sexes existing among the Indians. For instance, sowing and planting, the carrying of fuel, the gathering of wild fruits, the brewing of intoxicating drinks, and a good deal of other home industries are wholly or chiefly incumbent on the women. This to the Indians means that no man *can* successfully do work which custom prescribes shall be done by a woman. A consequence of this is that particular importance is ascribed to female work as such and that women in general are held in great esteem. From this point of view we must also explain the custom that a man who marries must go and live with his wife's family. It is mainly due to the reluctance of her parents to separate from her on account of the work she performs. Among the Choroti no compensation is given for a bride, because no bargaining of any kind whatever takes place between the members of the tribes. Instead of that, custom prescribes that the young husband shall render services to her parents, which is only possible if he stays with the family of his spouse for a longer or shorter time. In this way matrilocal marriage in the Choroti and other Chaco tribes seems to me to have originated, although the Choroti at any rate are not now aware of these services being really obligatory and a form of compensation for the wife. Marriage among them appears now as a wholly private affair based upon the voluntary agreement of both parties. But where a matrilocal marriage has developed, the children are naturally looked upon as belonging in the first place to the mother and to her tribe or clan, whereas the husband's importance as a family father is only secondary.

The same kind of »mother-right» and gynaecocracy also prevails, or prevailed formerly, among the *Mataco* Indians who, for instance, allow

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

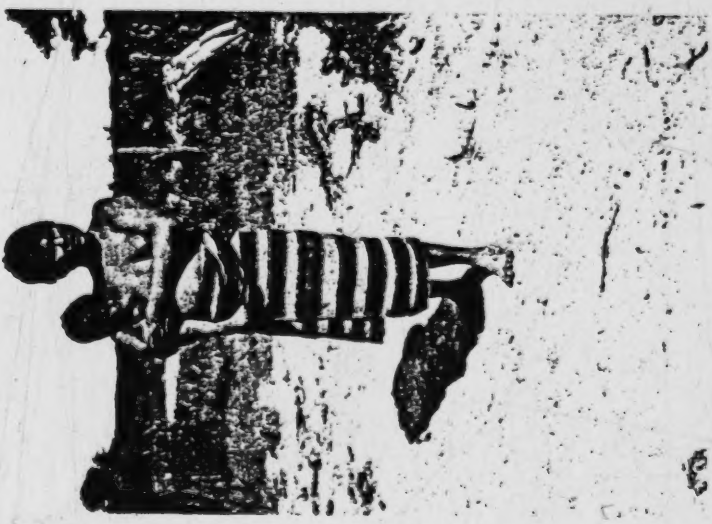

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Fig. 31. A young woman suckling her baby. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

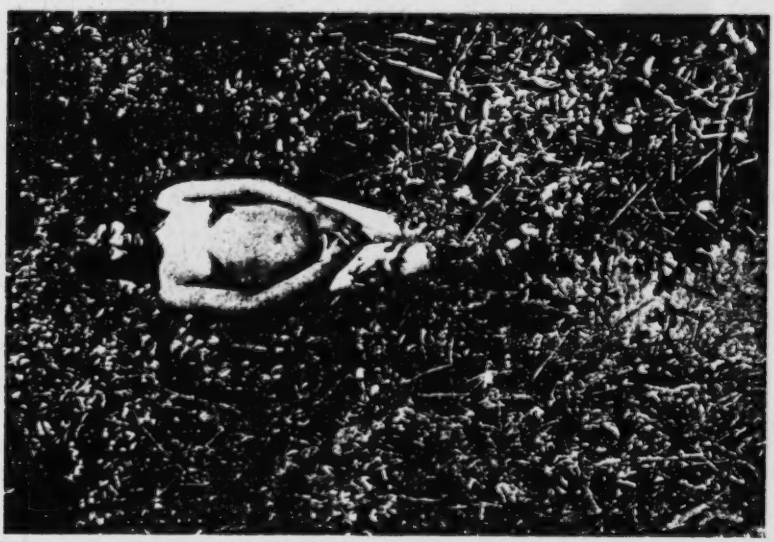

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Fig. 30. A girl. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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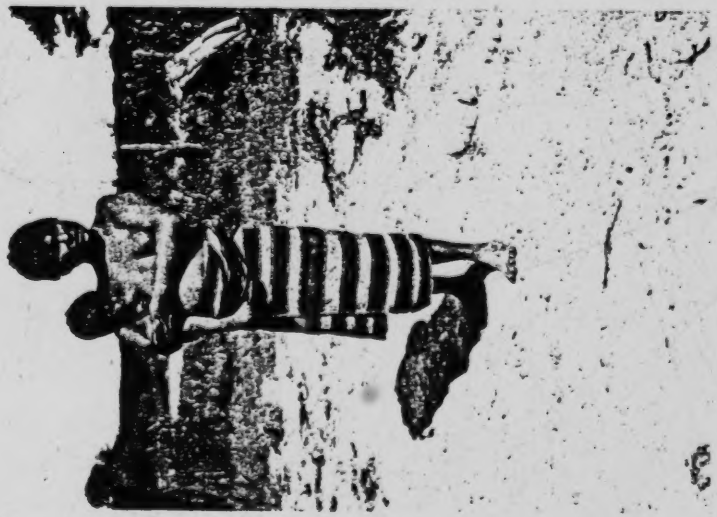

Fig. 21. A young woman suckling her baby. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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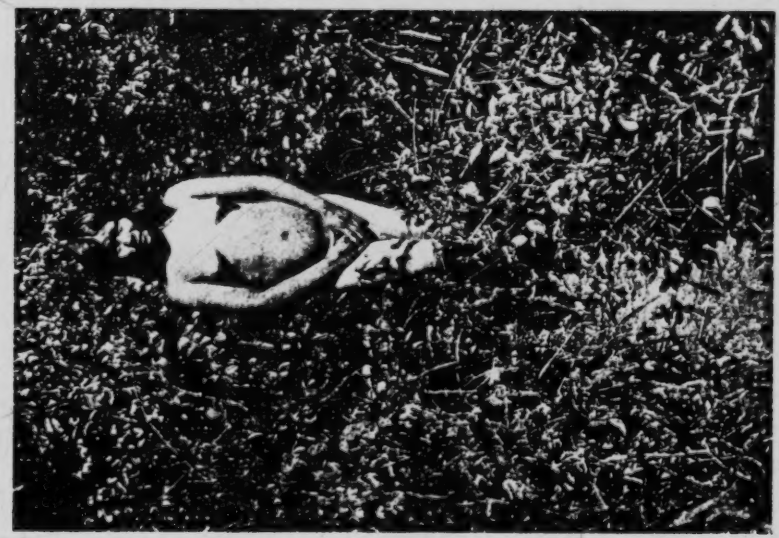

Fig. 20. A girl. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

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I: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 22. A woman, with infant. Note that the woman's ear-lobes are pierced, but that she is wearing no ear-lobe discs. Choroti, Gran Chaco, Bolivia. Photo. E. v. R.

Fig. 23. A boy and a girl (probably about 7 and 8 years old). Gran Chaco. Bolivia. Photo. E. v. R.

[i.e. "OR". -Analyst]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

equipment in large carrying-nets and bags; at such times the men march along unburdened, carrying in their hands only bow and arrows. This is, however, easily accounted for, as on the trek the men have always to be prepared to kill game for procuring food. If they, like the women, were hampered by heavy loads, they would practically have no chance at all of taking a ready arrow shot at game encountered on the march.

I never once saw grown women amusing themselves with any games or sports, whereas this is frequently the case with the men. The chief occupations of the latter consist of hunting, fishing, the gathering of wild honey and the manufacturing of various weapons and implements (see the above table of division of labour as between the sexes). The men give considerably less time to actual labour than the women, and to me it seemed as if the life of Choroti wives was hard and laborious, whilst that of the men, as a rule, was pretty light and easy-going.

Nevertheless, the men are by no means hard or cruel to their wives, and it appeared to me as if the women took it as a matter of course that they had to work for their husbands and children in the way they did, and, generally speaking, they seemed quite content with their lot in life. Indeed, I noticed many instances of real domestic happiness.

Parents bear great love to their children. These, when quite small, are carried by their mothers in a broad strip, or piece, of cloth in the way fig. 180 shows. The Choroti do not have many children; it is only seldom that the number of children exceeds four. According to Nordenskiöld, they are given names only when old enough to answer to them. The same author has noted down the following Choroti names, of which the first three are men's names, and the remainder women's names: Yóseliánée (the killer of foxes), Hotenie (Mataco), Éstiähua (a gallinaceous bird), Hayku (not sweet), Kósoki (suffering from skin eruptions), Aséshnialo (women in plenty).[1]

Parental authority does not amount to much, and actual bringing up and discipline is entirely out of the question. In cases where parents attain so great an age that they become irksome to their children, it is not unknown for the latter to kill them. Nordenskiöld's interpreter, Flores, once witnessed a Choroti man burning an old and decrepit woman alive. Old men and women, who are suspected of working evil by witchcraft, are sometimes burned alive, and therefore it is possible that belief in the

[1] Nordenskiöld (13), p. 85.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

correctly, to be Incan, and may, indeed, be looked upon as a «clue-fossil» showing the extension of the Incan civilization[1].

The women carry their children sitting on the hips or, sometimes, on a bearing-band. (Fig. 46). Such bearing-bands are found mostly in the eastern and northern parts of S. America. (Map 26).

I have seen them not only among the (1) Choroti but also among the (6) Mataco, (41) Guarayú (Pauserna), (40) Guarayú (Guarayos), (43) Huanyam, (24) Chimane, (32) Atsahuaca, (6 X) Tambopata-Guarayo, (3) Tapiete and (22) Yuracáre. They are not found among the Aymara, Quichua, Chiriguano, Chané and Cháma. Nor have I found bearing-bands in use among the Ashluslay and the Toba.

In the literature dealing with this subject such bearing-bands are mentioned as being in use among the following tribes: (45) Botokuds[2]), (07) Purí[3]), (15) Kayapó[4]), (38) Tupinambá[5]), (21) Coroados (Caingúa)[6]), (4 C) Guajajara[7]), (4 X) Gês-tribes, Maranhão[8]), (4 X) Tajé[9]), (20), Paressi-Kabiši[10]), (31) Chipaya and Curuahé[11]), (34) Jivaro[12]), (42) Caripuna[13]), (59) Crichana[14]), (46) Conibo[15]), (48), Kobéua[16]), (31) Ojana[17]),

[1]) See Uhle (2), p. 17; Boman, p. 205 and Jijón y Caamaño, p. 151
[2]) v. Ihering (2). Pl. 5, fig. 8.
[3]) Wied, Vol. I, p. 140.
[4]) Krause, p. 403 and 404, Pl. 25.
[5]) Staden. Vol. 2, (p. 18.); Piso et Marcgrav, p. 274.
[6]) Konigswald, fig. 33, p. 31.
[7]) Plagge, p. 200.
[8]) Ribeiro, p. 188.
[9]) Nimuendajú-Unkel (2), p. 620.
[10]) Max Schmidt (4), fig. 30.
[11]) Snethlage, Pl. II.
[12]) Festa, Pl. foll. p. 194.
[13]) Keller-Leuzinger, p. 105.
[14]) Barbosa Rodrigues, p. 105.
[15]) Sala, fig. p. 78.
[16]) Koch-Grünberg, (2) Vol. 2, p. 147.
[17]) Goeje (1), Pl. 7, fig. 19.

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1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

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Fig. 22. A woman, with infant. Note that the woman's ear-lobes are pierced, but that she is wearing no ear-lobe discs. Choroti. Gran Chaco, Bolivia. Photo. E. v. R.

Fig. 23. A boy and a girl (probably about 7 and 8 years old). Gran Chaco. Bolivia. Photo. E. v. R.

[i.e. "OR". -Analyst]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6
Toba SI 12

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»pea-shooters» of reed.[1] With the latter they fire off hard kernels, clay pellets, etc. Very small children are given small rattles made of woody fruit shells with dry kernels inside, which make a rattling noise when shaken. Girls are very fond of playing with dolls. These are modelled in clay by some female relative, usually the girl's mother, and are usually fashioned in the shape seen in fig. 176. This doll, which represents a woman with strongly developed breasts, is, however, not from the Choroti but from the Toba, a tribe with whom I also came in contact during our journey. It would appear as if the Choroti mothers in making these dolls attach the greatest importance to reproducing the breasts as true to nature as possible, and often they also try to copy the tattoo marks on the face. The Choroti dolls, however, often being made either without, or with very small, heads, the tattooing is mostly marked on the breast of the figure.[2]

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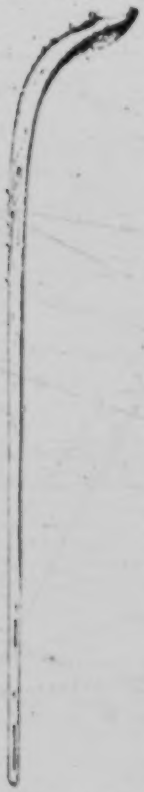

Fig. 174. »Hockey» stick, consisting of the leaf-stalk of a palm. Choroti. Gran Chaco, Bolivia. 1/8. Riksm. 03. 3. 203.

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Not only Choroti children, but also grown-ups occasionally while away time by string tricks more or less resembling those which children of our own country sometimes amuse themselves with.[3]

I have had frequent opportunities of seeing Choroti children at play, and have found their games and sports in many ways similar to those of our own children. Indian children play »tag», play being at war, at hunting and fishing, and also imitate other occupations and doings of their elders.

Fig. 175. Hand-ball, of maize leaves. Choroti. Gran Chaco. Bolivia. 1/8. Riksm. 03. 3. 199.

Fig. 176. Child's doll, made of clay. Toba. Gran Chaco. 1/3. Riksm. 03. 3. 805.

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[1] Nordenskiöld (13), fig. 23.
[2] Cf. Nordenskiöld (20), figs. 4—18.
[3] Nordenskiöld (13), fig. 25.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

VII.

Hunting Weapons and Equipment.

The Choroti are not eager huntsmen. The Ashluslay propably hunt more. Their only real hunting weapon is the bow and arrow. They also have snares of various sorts, though I do not know if they use them much. The sling and the bolas also occur among these Indians, but only as boys' weapons.

The *bow and arrow* are certainly very old cultural elements throughout S. America. We find them almost all over the continent and among all the really primitive peoples. As far as I know, this weapon is only wanting on the Upper Amazon, or at least was rare there, for in the oldest books of travels[1]) from these parts we are told that on the upper part of this river the Indians fought with spears which they flung with the throwing stick, whereas lower down the river they used the bow and arrow. In the mountainous regions and on the Peruvian coast, i. e. in the greater part of the cultural zone in the West, the bow and arrow was also a rare weapon[2]). One may really ask why the Indians there preferred to use the throwing stick rather than the bow, which latter was nowhere unknown to them. VEIGL gives us a good explanation[3]): «The throwing stick carries as far as a bow, and is much more convenient for them, as they can

[1]) See GASPAR DE CARVAJAL and ACUÑA.
[2]) But was not unknown there.
[3]) P. 256.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

arrived at this plantation to look for work. Led by their chiefs, they had made the long journey from the region of their homes. The chiefs, some of whom had met us in the Chaco, whilst others had only heard of us, wished to pay us a call. Personally I do not possess any notes about this reception, but I have come across some in Fries' diary. He thus refers to the incident: »When the Choroti Indians, whom we knew from Tatarenda and who were now working here, saw us, they came, almost to a man, and greeted us, being evidently very glad to meet us again. *The principal chief, at the head of all the lesser caziques*, was among those who came and paid us their respects.»[1]

A favoured position in the village community is that held by the medicine men; for their services they are rewarded by a — from a Choroti point of view — generous remuneration in the form of food and drink. That among the Choroti the medicine men are held in great esteem, and that everybody is anxious to be on good terms with them, appears only natural to anyone with a knowledge of what an important part magical conceptions play with these Indians. It is largely by the Finlander explorer, Rafael Karsten — oft-quoted in the present work — that ethnological science has been enriched by information and detailed reports on the magical customs and practices of the Choroti, as well as of other Chaco tribes.[3]

The Choroti Indians believe that man, all his life through, is more or less subject to influences from spirits, who, on the whole, are of a harmful nature. Especial danger is to be apprehended from spirits on certain occasions such as child-birth, pubescence and death. Usually the evil is worked by a spirit, »mohsek», entering a person through one of the orifices of his body and thereby assuming possession of him. If at birth a child is deformed or very sickly, it is supposed to be possessed by some evil »moshek», and is on that account killed.[4] When a girl has attained the age of puberty, during the first critical, time she must keep a covering over her head, so that no evil spirit may be able to enter her body by way of her nose, mouth, eyes or ears.[4] The occasion of a girl attaining puberty is celebrated with a dance which undoubtedly is of a magical character.

[1] Professor Robert Fries: diary, X, p. 14. Italics by von Rosen.
[3] See Bibliography attached.
[3] Karsten (4), p. 170.
[4] Karsten (4), p. 165.

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process and the other procreative functions of the woman is realized. The attainment of puberty therefore for the Indian girl certainly means the beginning of her sexual life, but at the same time it means her entrance into a very critical epoch of development, during which she is often — especially at child-birth and during the following menses — exposed to supernatural dangers. Hence the initiation ceremonies at puberty have for their object partly her direct protection against these dangers for the time being, partly her purification once for all from the evils associated with her sexual functions during the years to come or — to express it more plainly — to *harden* her against evil spirits. From this point of view we have to regard all puberty ceremonies of the Indians, even such practices as painting, scarification, and tattooing of the body or face, often undertaken with girls on the attainment of puberty.

In the dances and conjurations performed in honour of girls at puberty it is the women who, contrary to what is generally the rule in religious ceremonies, play the most prominent part. Among the *Choroti* the puberty of girls is celebrated with a magical dance called *Káusima* after the instrument which the women use for it; the instrument is called *káhuis*. The *káhuis* is a dancing-staff, two or three meters in length, made of a light kind of wood or bamboo, which has a bunch of deer's hoofs tied at the top. These rattles produce a hollow sound when the staff is struck on the ground and are supposed to possess a mysterious power to influence the spirits. This power of course must be explained from the fact that to the Choroti the deer is a demoniacal animal. The *káhuis* staff is the only magical instrument used by the Choroti women and it is never handled by the men.

The dance begins at the first new moon after the appearance of the signs of puberty, because the moon is believed to cause and have great influence upon the menstruation of women. It is performed every day until the following new moon, sometimes even still longer. At a *Káusima* dance which I witnessed the arrangement was as follows. The mother of the girl and some other elderly women formed a circle, or rather an elliptic ring, outside the hut where the girl was, each holding her rattling dancing staff. Close to the ring four medicine-men were sitting at equal distances from one another, holding their rattle gourds (*pelíte*). There were besides two more medicine-men standing up, each provided with a drum. During the dance the women moved round ceremoniously with slow, regular steps, chanting loudly and marking time with their rattle staffs which they struck on the ground. The men outside the ring also chanted, shaking

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their rattle gourds, whilst the men provided with drums beat them. The girl in whose honour the dance was held was standing motionless and silent at the entrance of the hut reclining against the wall and had to remain so during the whole ceremony. Sometimes, when towards evening she got tired and was on the point of falling asleep, one of the medicine-men came up to her and shook his rattle close to her face as if to keep her awake. The ceremony began in the afternoon and was continued with short pauses throughout the whole evening until midnight. I was informed that as long as the dance goes on the girl need not be veiled, but as soon as the conjuration is finished for the night she must have her face and her whole body well covered. During the whole period that the dance is performed she is moreover obliged to fast, avoiding fish and meat and living only on some light vegetable food.

I may add that all the men who took part in the ceremony were painted on the face in one way or another. Some of them simply had the face coated red with roucou or black with charcoal, whereas others had X-shaped or other patterns painted on the cheeks. The men's faces are always painted in this way at the conjurations of the Indians, and these paintings have a purely magical significance.

The drinking of algaroba beer also forms part of the magical practices at the feast, but it is strictly limited to the men.

The object of all these ceremonies is to protect the girl against the evil spirits, the *möhsek*, by which she is believed to be particularly attacked during her unclean condition. The spirits try to enter into her through the face — especially through those parts where there is a natural opening of the body, such as the eyes, the ears, the nose, and the mouth — and also through the ventral parts, the consequence being, if they succeed in doing so, that she will fall ill and die, or become supernaturally pregnant and give birth to a monster. It is in this way that the Indians account for the birth of those deformed children which they kill directly after birth. To prevent such frightful accidents the girl's head and body are covered after the conjuration is finished for the night. By means of the dancing, chanting, drumming, etc. the evil demons who take an interest in the girl and swarm about her are conjured and rendered harmless. According to the idea of the Indians she is not only protected for the time being against their attacks, but she will also retain a certain power of resistance against them in the future.

The puberty of a girl is not celebrated in all cases among the Choroti with so many ceremonies as in the case just described, but the

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Painting by E. Wassén

The *Káuslma*, a magic dance of the, Choroti, performed in the honour of girls at puberty. The girl is standing at the entrance of the hut.

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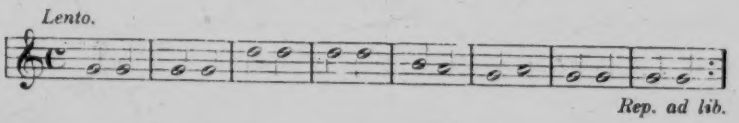
Kausīma dance is always obligatory. Thus in a case which came under my notice the dance was performed by a middle-aged woman who, holding the dancing-staff (*káhuis*) in her right hand, proceeded with slow regular steps backwards and forwards in front of the house, where the girl, in whose »honour» the dance was performed, was sitting motionless. The woman accompanied her dance with a peculiar monotonous chant marking time, as usual, with the *káhuis*. Sometimes one of the small girls went and joined her, holding the dancing-staff together with her and walking in the same time. The dance and chant was begun at sunset and continued with short intervals till midnight. The melody of the chant which was repeated over and over again, was the following:



It is evident that the object of the dance was to drive away or keep off the evil *mōhsek* who were trying to harm the girl.

Exactly the same custom prevails among the neighbours of the Choroti in the south, the Ashluslay Indians, who in their culture are so closely related to the Choroti. The fact that the rattling dancing-staffs form a magical instrument peculiar to the Chaco tribes, may also be inferred from the puberty ceremonies in vogue among the *Lenguas* of Paraguay. These ceremonies are shortly described by Mr. Barbrooke Grubb, but since he gives no explanation of their significance I may mention them in this connection, with more reason since the Lenguas are culturally closely related to the Indians of the Mataco-Choroti group. The main dance is, as among the Choroti, performed by the women who circle round the girl to be initiated, chanting and marking time with their rattle staffs. A troop of lads, dressed in ostrich plumes and wearing masks to represent evil spirits, issue from the forest, running one behind the other in a serpentine formation, move in and out among the crowd, jingling bunches of hoofs and from time to time uttering prolonged shrill cries. At their near approach the women dance and chant with increasing vigour round the girl pretending to protect her and to drive off the masked »spirits» [1]). The idea just indicated by me with regard to the Choroti, namely, that the young woman will, through the initiation, become permanently har-

[1]) Grubb, *op. cit.* p. 178.

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odd appearance which the charcoal gives the face acts as a deterrent; but probably some mysterious magical properties are also ascribed to the soot or charcoal itself. Black is held to be a more powerful means of inspiring evil demons with fear than other colours: hence it has especially become the colour of sorrow: for the spirits of the recently departed, or the demons who cause disease and death, are, after all, the most dreaded of all supernatural beings.

Even ornamental painting may be applied after a death. Thus an old woman had painted a small arrow in brown colour on each cheek in the evening of the day a brother of hers had died. The true significance of this face-painting may be inferred from the fact that in the same evening all the inhabitants of the village carried arrows or sticks in their hands when they moved about outside their huts, and that the nearest relatives of the dead, who had abandoned the house of death, had made themselves a whole fence of arrows stuck in the ground, inside which they spent the night. The object of these precautions was professedly to keep off the death-demon, and the same was certainly the object of the ornamental arrows painted on the woman's cheeks. The Indians in fact believe that they can intimidate their supernatural foes in the same way as their natural enemies.

Lastly, the Tobas, like other South American Indians, are in the habit of painting the body before they march out to battle. This kind of body-painting has already been described in connection with Indian warfare.

The facial paintings of the *Choroti* show a greater variety of design than those of the Tobas. These ornamental designs are applied for feasts and dances, and since the latter in many cases have apparently a profane character, it may seem to a superficial observer as if the body-painting of the Choroti had for its object only to embellish the appearance. Such a conclusion however would be a mistake, since the Choroti dances, as we have seen, are in really in their nature a sort of magical conjuration. Similarly, the feasts held in the honour of young girls at puberty have a purely religious significance. At a feast of this kind where I was present most of the men who took part in the ceremonies had painted on their faces ornamental designs in red and black colours. Many of them had painted on each cheek an X-shaped design which is frequently met with in the ornamental art of the South American Indians and which is evidently nothing but an impressionistic drawing of the human body, representing for instance the breast and the stomach, of

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C 302 881 the body of some animal. The magical nature of these ornaments was likewise obvious.

M 302 789 Among the *Mataco*, who in general are more addicted to religion and superstition than the Choroti, the character of facial painting as a magical charm is more conspicuous. These Indians give facial painting different names according as it is used by men or women and depending on its colour. Thus the red painting of women is called *eruháh*, whereas M [765] the red painting of the men is called *oviitláh* (a name evidently derived from the word *aittáh* demon). The black painting is called *letáh*. It is especially used as a sign of sorrow. When a Mataco man dies, his widow and daughters blacken their faces with charcoal, regarding this as a protection against the death-demon. Similarly, for some time after a death the younger men every evening perform the dance *Katináh*, and M [751] all those taking part in the dance have their faces blackened. — The red painting again is applied as a means of giving the body strength and as a direct protection against evil spirits causing sickness.

M 301 789 Many *personal ornaments* of the Chaco Indians, for instance ear-tubes, necklaces, feather ornaments etc., are of the nature of charms or amulets against evil spirits. The feather ornaments most customary among the Chaco tribes are ostrich plumes, and these, as I have shown in my *Civilization of the South American Indians* have originally not been decorations in the civilized sense of the word, but magical charms, a character which they still preserve for instance among such tribes as the Chamacoco and Lenguas in Paraguay. Among the Choroti, who likewise at their great feasts in December and January wear great ostrich plumes as ornaments, this is not equally conspicuous in accordance with the fact that in many cases the Choroti culture shows traces of an incipient degeneration. On the other hand, in the description I have M [756] given before of a Mataco dance performed to conjure disease demons and in which the sorcerers had ostrich feathers fastened to the ankles, wrists, head, and waist,[1]) the »mystic» significance of these »ornaments» is quite obvious. Similarly, when another writer states that the Mataco in some parts of the Argentine Chaco not only use ostrich plumes as head-ornaments, but also apply them to the face as a sort of beard, which gives them a grotesque and ferocious appearance, or wear them round the wrists in the way of bracelets,[2]) one cannot fail to recognize superstitious motives behind these arrangements

[1]) See *supra*, p. 137.

[2]) Baldrich, *Las comarcas vírgenes*, p. 231.

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translated »big ears» — an appellation subsequently transferred to all such tribes within, or in the neighbourhood of, the Inca kingdom, among whom the wearing of ear-lobe discs was customary.

In our days, the practice of wearing ear-lobe discs is met with among a number of tribes distributed over the whole of that part of South America which lies to the north of the tropic of Capricorn.[1] On the Chaco, ear-lobe discs are extensively worn by the Choroti, Lengua[2] and Ashluslay, and are also found among some of the Mataco and Toba Indians.[3] Also in North America the custom of wearing ear-lobe discs, or blocks, appears to be very ancient.[4] The wearing of this kind of ear discs is, however, not limited to America, but is also found, among other places, in Central Africa.[5]

Fig. 52. Brush-like ornament of false hair, for wearing pushed in under the frontlet. Choroti, Gran Chaco, Bolivia.[6] a. Riksm. 03. 3. 65.

Among the Choroti, all the men and youths have their ear-lobes pierced, and in the holes they wear discs (see for instance figs. 17, 30, 39, 53). These discs were almost always used for everyday wear, and invariably on state occasions. It very seldom happened that I saw a Choroti man without his ear-discs. Latterly, the practice of wearing ear-lobe discs has, in the same way as other old customs once prevalent among the Choroti, become less common, and nowadays it seems that the Choroti, for everyday use at least, often appear without their discs. The piercing of the ear-lobes is performed with a bone awl, or cactus spine, already during boyhood, but I did not see any boys under puberty age wearing discs. Neither is there anything in the literature indicating that Choroti boys put on ear discs before that age.[6]

But, on the other hand, immediately on having had their ear-lobes pierced, the Choroti children take to wearing bits of grass, or very slender

[1] Nordenskiöld (11), map 18.
[2] Koch (1), p. 218, and Hawtrey (1), p. 283.
[3] Nordenskiöld (11), p. 122.
[4] See for instance Moore (2), p. 282.
[5] von Rosen (4), plate 7, fig. A, and von Rosen (7), p. 124.
[6] When it has been stated that the wearing of ear-lobe discs has nothing to do with pubescence [Nordenskiöld (13), p. 68], this is correct only in so far as the ear discs of the Choroti, like the tembeta of the Chiriguano, may, perhaps, first and foremost be attributed with a magical significance, and that their character of being symbols of puberty is only a secondary one. Cf. Karsten (4), p. 155.

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sticks, in the holes that have been made, in order to keep them from closing up. After the healing of the wound, these plugs are, however taken out, and it is only when the boys have reached the age of puberty, that the ear-lobe is gradually distended by means of plugging with a succession of ear blocks, or ear-lobe discs, of increasing sizes. Only youths of mature age, and men, are allowed to take part in certain religious dances. At the performance of these, it is of especial importance to be protected from evil spirits. According to the belief of the Indians, ear discs afford them such protection,[1] and it is therefore possible that this is the reason why the boys begin wearing ear discs only after having attained puberty. For reasons which I shall explain below, I consider that the *piercing of the ear-lobes by no means always implies wearing of ear-lobe discs*. Among the Choroti, the ears of little girls are often pierced in the same way as in the case of the boys[2] (see the woman with pierced ear-lobes in fig. 22), *but never once did I see a Choroti woman wearing discs in her ears*, nor is there in the literature on these Indians any photographic evidence to be found, as far as I know, of Choroti women wearing ear discs. Further; neither Baron Erland Nordenskiöld,[3] nor Doctor Rafael Karsten, both explorers who have lived for a long time among the Choroti, are now able to recollect with any certainty having seen any Choroti woman wearing ear discs.

To cause bleeding by perforating the skin, has among the Chorotis, as among other tribes in the Chaco — a magic significance, and the possession of many scars is considered a great advantage. Thus, for instance, the Chaco Indians will with ostentation and satisfaction show even scars from bites of the palometa fish. When the Choroti believe themselves possessed by some evil spirit, they prick themselves with sharp-pointed bone awls, and imagine that the spirit leaves the body with the outflowing blood. About this custom, Karsten writes: »If the arm fails or trembles in pulling the bow, its weakness is, according to the belief of the Chorotis, due to the presence of a mohsek in the blood and they think that the evil demon will leave the body with the blood drawn. The scars left by the cuts are kept up with care and shown with satisfaction,

[1] Karsten (4), p. 134, and Grubb (1), p. 72.

[2] Nordenskiöld observed in a Choroti village that *all* the girls had their ears pierced. According to a letter of his, dated 13 May, 1921. Rockefeller collection of manuscripts, volume 1921, letter N.

[3] According to letter referred to in footnote 2.

Q L should be Chorotis. - Aunty E]

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Toba SI12
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The custom of tattooing, as it was practised by the ancient Guaycurú is described by Father Dobrizhoffer in much the following way. The Abiponian women, says the Father,[1]) not content with the marks common to both sexes, have their face, breast, and arms covered with black figures of various shapes, so that they present the appearance of a Turkish carpet. As soon as a young woman is of age to be married, she is ordered to be marked according to custom. She reclines her head upon the lap of an old woman and is pricked. Thorns are used for a pencil, and ashes mixed with blood for paint. The old woman, sticking the points of the thorns deep into the flesh, describes various figures till the whole face streams with blood. The first day she is sent home with her face half pricked with the thorns, and is recalled the next and the next after that, to have the rest of her face, the breast, and the arms pricked in like manner. Meantime she is shut up for several days in her father's tent and wrapped in a hide that she may receive no injury from the cold air. Carefully abstaining from meat, fish, and some other sorts of food, she feeds upon nothing but a little fruit which grows upon brambles and conduces much towards cooling the blood.[2])

From Dobrizhoffer's account it appears that tattooing was practised by the ancient Guaycurú in the same way as by the present-day Chaco tribes.

Among the puberty customs we may also, in a certain sense, reckon the perforation of the ear-lobes for the insertion of wooden plugs or tubes. The perforation takes place even before the age of puberty, when the boy or girl is five or six years old, but the wooden ornaments are inserted later and are a sign that the boy or girl in question is regarded as a man or woman. The ear-lobe is pierced with a cactus thorn by an old woman, a grass or small wooden pin being inserted so as to prevent the wound from closing. Later on bigger and bigger pins are inserted, by which the holes are more and more extended, and lastly the plug or tube, which forms one of the most prominent ornaments of the Indians. The wooden plugs which the Tobas formerly wore in their ear-lobes, were so thick and heavy that they hung nearly down to the shoulders. In our own days they are only used by the Argentine Pilága, not by the Bolivian Tobas. It is to be observed that although the ear-lobes of both sexes are perforated, the ear-plugs or tubes are among the Choroti, Mataco, and Ashluslay worn chiefly by men, seldom by women, whereas among the Tobas *only* men wear them. These ornaments seem to have chiefly a magical significance.

[1]) Dobrizhoffer, *An Account of the Abipones*, II. 20 sq.

[2]) This fruit is evidently the tasi fruit mentioned above, which thus is still eaten by the Toba women when they have to observe ceremonial fasting.

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equipment in large carrying-nets and bags; at such times the men march along unburdened, carrying in their hands only bow and arrows. This is, however, easily accounted for, as on the trek the men have always to be prepared to kill game for procuring food. If they, like the women, were hampered by heavy loads, they would practically have no chance at all of taking a ready arrow shot at game encountered on the march.

I never once saw grown women amusing themselves with any games or sports, whereas this is frequently the case with the men. The chief occupations of the latter consist of hunting, fishing, the gathering of wild honey and the manufacturing of various weapons and implements (see the above table of division of labour as between the sexes). The men give considerably less time to actual labour than the women, and to me it seemed as if the life of Choroti wives was hard and laborious, whilst that of the men, as a rule, was pretty light and easy-going.

Nevertheless, the men are by no means hard or cruel to their wives, and it appeared to me as if the women took it as a matter of course that they had to work for their husbands and children in the way they did, and, generally speaking, they seemed quite content with their lot in life. Indeed, I noticed many instances of real domestic happiness.

Parents bear great love to their children. These, when quite small, are carried by their mothers in a broad strip, or piece, of cloth in the way fig. 180 shows. The Choroti do not have many children; it is only seldom that the number of children exceeds four. According to Nordenskiöld, they are given names only when old enough to answer to them. The same author has noted down the following Choroti names, of which the first three are men's names, and the remainder women's names: Yóselianée (the killer of foxes), Hotenic (Mataco), Éstiähua (a gallinaceous bird), Hayku (not sweet), Kósoki (suffering from skin eruptions), Aséshnialo (women in plenty).[1]

Parental authority does not amount to much, and actual bringing up and discipline is entirely out of the question. In cases where parents attain so great an age that they become irksome to their children, it is not unknown for the latter to kill them. Nordenskiöld's interpreter, Flores, once witnessed a Choroti man burning an old and decrepit woman alive. Old men and women, who are suspected of working evil by witchcraft, are sometimes burned alive, and therefore it is possible that belief in the

[1] Nordenskiöld (13), p. 85.

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Fig. 180. Husband and wife, with baby. Choroti. Gran Chaco. Bolivia. Photo. E. v. R.

[888 754 683] supernatural, of some kind or other, plays a leading part when children kill their aged parent.

622 Every village is ruled by a chief or headman. According to the observations of some investigators, these headmen do not nowadays possess any great power or authority, but among the Choroti whom I visited in 1901, the chief's authority was by no means inconsiderable. For example, it only needed my arranging with him that the Indians were to carry out a certain piece of work, and the work would be done. For the work performed by the Indians I paid the chief in goods, which he allotted among them as he himself thought fit, as it appeared. In war, each village [643] contingent is under the leadership of their headman. It was stated by the soldiers of Fort Crevaux that all Choroti used to be under a paramount chief, whose authority over all the other chiefs principally consisted in his being entitled to taking chief command in war. The office of village headman as a rule descends from father to son.

622 554 That certain Choroti chiefs used to be held in greater respect than others was made evident to us at a visit we made to a sugar plantation on our return journey to Salta. A large number of Choroti had just then

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anétsiăs vuh. exerting a certain social influence. Chieftainship however, among the Choroti is rather nominal than real; even the »great chief» is in fact destitute of power, although in relation to other tribes and to the whites he exercises certain representative functions. Thus when commissions from the sugar factories arrived in the Chaco to negotiate about the sending of Indian labourers to northern Argentine, they had to deal with the chiefs, who through the medium of interpreters gave them answers on behalf of their people. But even the »great chiefs» cannot compel anybody to work, nor can they interfere with the private affairs of the families, in which the father and the mother have full liberty of action. Still more imaginary is the power of the village chief, who is nothing but a *pater familias* enjoying a certain esteem. He cannot command anybody, but merely represents his village community in relation to outsiders, just as the »great chief» represents the whole sub-tribe.

The dignity of chief is not hereditary among the Choroti, nor apparently among the Mataco. When the chief dies, the oldest family fathers of the community assemble under the big algaroba tree which serves as a club-house and elect a new chief, the election taking place in connection with a drinking-feast.

Old men are generally held in great esteem, and the chiefs are generally, although not invariably, men of advanced age. Among the Choroti, old men are held in particular esteem for superstitious reasons, since they are believed to be changed, after death, into evil spirits. As we shall see later on in the chapter on the religion of the Indians, the spirits of the Choroti are believed to appear in the shape of old men. Since the natural magical power of the human body is increased with advancing age, it is natural that old people are feared, but the supernatural halo which surrounds them of course at the same time is apt to give them social influence. Above all their supposed connection with the spirits makes them qualified to exercise religious functions. Independent of any particular initiation, every old man is credited with the power of conjuring the spirits and is thus always more or less a sorcerer. If therefore we wish to speak of a social distinction among the Choroti, we may say that the sorcerers, called *ayïeu*, are the only members of the Choroti society who in a certain sense form a class of their own or mark the beginnings of a social differentiation. Since, however, every old man is more or less expert in the act of magic and considered able to handle the rattle gourd (*pelïte*) or the drum (*usyúk*), the *ayïeu* of the Choroti cannot be called professional sorcerers in the strict sense of the word.

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in their magical dances and conjurations the Indians as a matter of fact most often deal with these particular evil spirits.

These are features common to the religious beliefs of all Indians of the Chaco, indeed they are found among all South American Indians. But even in the Chaco this general belief in spirits appears in somewhat different forms among different tribes. The *Choroti* fancy that the spirits, *möhsek*, in their external appearance have the shape of old, withered men (*kihilahs*). They are, in the imagination of the Indians, provided with wings, which enable them to move rapidly through the air. Owing to their bird-like appearance the spirits are also called *ahuena* (»the birds»). They are countless in number, mostly invisible, and as a general rule evilly disposed towards mankind. I never met an Indian who professed to have *seen* a *möhsek*, but nearly all say that they have *heard* their voices at night. One peculiarity of the demons of the Chaco Indians is that they only exist at night. As soon as darkness sets in the Choroti Indian fears mysterious dangers from the *möhsek*, who are then believed to draw near the villages in great numbers and even to enter into the huts, visiting the inhabitants with sickness and death. This is the reason why a traveller living with the Choroti can hear from some house nearly every night the low chant of some old man accompanied by the dull sound of the rattle gourd, *pelite*, with which he tries to conjure and keep off the supernatural pests. At daybreak however the spirits are supposed to leave for the forests and the plains — with a piping or whistling sound, the Indians explained to me, which they are very clever in imitating. For this purpose the Choroti use a special kind of round whistle which they generally wear hanging round the neck as an ornament. At their religious dances they produce, from time to time, shrill whistling sounds with these whistles, professedly with a view to conjuring the *möhsek*. The Indians believe that they can keep supernatural beings at bay by imitating them in their external appearance or their sounds.

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In the Chaco many weird sounds are heard at night which are apt to fill the natives with superstitious fear. The Choroti frequently told me about the »nightly whistling of the spirits» (*yap möhsek ahuäh*). The peculiar piping or whistling which is most often identified with the sound of the spirits is, I believe, produced by certain insects living on the stems or branches of the trees. The spirit of the tusca tree was specially mentioned to me, but this spirit is said to be a »good» being.

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The idea of the Choroti that the spirits have the shape of old men, has given rise to a peculiar and cruel custom. They do not allow their

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old men to die a natural death, but when they grow very weakly and sickly they kill them with an arrow-shot in the heart, whereupon they burn them with all their property instead of burying them, which among the Choroti is the general mode of disposing of the remains of the dead. The reason which they gave me for this custom was that if an old man is allowed to die a natural death he will be changed into an evil demon (*möhsek*), who will rage in the village and kill all the people. This, according to their idea, can be prevented by giving the old men a premature, violent death.[1]) In order to understand this custom we must, moreover, take into consideration that to the mind of these Indians *all* aged men are more or less versed in the magic art, *i. e.* are sorcerers, and the spirits of sorcerers are specially feared.

The fact that old men and sorcerers are believed to be transformed after death into evil *möhsek* seems to suggest that these spirits or demons are nothing but disembodied human souls, who have in the after-life been changed into supernatural and mostly evilly disposed beings. As a matter of fact, the death-spirit residing in the grave where a dead body has been buried is called *möhsek* by the Choroti. Like most other primitive peoples the Choroti fear the burial-places because they fear coming in contact with the spirits haunting these places. It seems therefore evident that at any rate the souls of certain persons are changed into *möhsek* after death. The word *möhsek* may therefore be best translated into 'ghost'. The Indians only use it of the disembodied souls or spirits of dead men, but not of the shadow-like »doubles» of a living person, for which they have no particular word. Even when speaking of a recently departed person they generally simply use the expression *yäl*, *i.e.* »the dead one». *Möhsek* particularly seems to have reference to the spirits of men who died long ago, and these spirits as a rule are more evilly disposed and more feared than the spirits of Indians recently departed.

The Choroti, like other Chaco Indians, do not deify inanimate objects of nature to the same extent as many other South American tribes. Yet

[1]) Nordenskiöld's categoric statement as to the practice of infanticide and parricide among the Choroti therefore is not correct. (»Der Mord beschränkt sich auf den Kinder- und Elternmord»; and: »Wenn ein Indianer seine alte blinde Mutter oder seinen verkrüppelten Vater tötet, so befreit er sie selbst von einem Leben das ihnen eine Last ist und sich selbst von einer Extramühe im Kampfe ums Dasein.» (*Indianerleben*, p. 38). As I have stated above, the killing of parents is limited to old men, and this custom must wholly be explained from the superstition of the Indians. Infanticide again is limited to the cases mentioned by me in a previous chapter.

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shape of a horse [1] — an animal which is regarded with superstition by the Choroti — and will kill the »good spirit» of the inimical sorcerer. The latter being thus deprived of his assistant genius, will fall an easy victim to his assailant.

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The guardian spirit is not hereditary but is acquired individually in the course of life and to a certain degree through teaching. The older a person grows, the more power and influence he is believed, by the Tobas, to gain over his *peyák nõtta*; hence the medicine-men are generally men of advanced age. The same may be said of the *Choroti*, who regard every old man as being more or less a sorcerer and endowed with supernatural powers. Since the women are always physically and spiritually weaker than men, they have always more difficulty in obtaining guardian spirits. I only know of a special initiation for women, who dedicate themselves to the exercise of the magic art, in the case of the Choroti. A women who wants to become a sorcerer, I was told, must eat a raw chirimoya fruit (*Anona chirimolia?*). When ripe, the chirimoya is edible and good; but in an unripe condition it is said to be poisonous, and a person eating of it according to the belief of the Indians will die or fall ill. If however the woman, while she is eating the raw fruit, performs the ceremony *Kausimá* with the magical rattle staffs, she will escape harm and she will moreover in the future be able to conjure spirits with success. This idea is in fact typical of the initiation ceremonies of the Indians: the woman has been in contact with evil spirits but has been able to resist them, in consequence she has been rendered immune against them and acquired power over them which enables her to use them for her own ends in the future.

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Apart from the fact that the »good spirit» of the Choroti medicine-men is at least in some cases believed to appear in the form of a horse, the »good spirits» are in their external appearance like other spirits. The *Tobas* say that their *peyák nõtta* dwells in the heavens (*piyim*) from where he comes down to assist the medicine-man who invokes him. Similarly the Choroti say that their *möhsik eis*, when summond by the sorcerer comes down from the sky, but the »sky» (*põle*) is not to the Choroti a definite place like the *piyim* of the Tobas. *Piyim* has developed into a mythological concept: it signifies Paradise or the realm of the dead of the Toba Indians. When a Toba Indian dies, I was told,

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[1] Since the horse was introduced among the Chaco Indians by Europeans, this is not of course an original idea of the Choroti.

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tion to the men shaking rattles, one or more Indians are beating drums and chanting. These noisy ceremonies are continued with short intervals during the whole night. When one party of Indians are tired and stop to rest for a moment, they are relieved by another party, since it is considered very important that there should be no interruption in the ceremonies; otherwise they would lose something of their effect. In the early morning the danger is believed to have passed; the fermentation has taken place, and the evil spirits have not been able to approach the drink and spoil it.

Although this negative object of the rites is particularly emphasized by the Indians, they also have a positive object which is indicated by the very expression »hurry on the fermentation». As we have already seen, the fruit of which the drink is made is believed to be animated by a spirit, and it is the same spirit that is active in the fermented, intoxicating beer. The rites described, while they are supposed to keep off evil spirits, are also intended to influence magically the plant-spirit itself and to bring it to its highest point of development, which is marked by the fermentation. This is partly effected through the chanting, the shaking of rattles, and the drumming, partly through the procedure of mixing the mashed fruit with saliva. The saliva really has the property of bringing about fermentation, and this phenomenon is explained by the superstitious Indian as due to the supernatural virtues which this secretion is believed to possess. Even the fact that only *old* women chew the fruit is probably not accidental. Old people have by nature a stronger magical power than the young and their saliva has therefore greater efficacy.

The Chaco Indians not only try to promote the growth of the fruits by shaking rattles and drumming, but also by *dancing*. Thus the Toba dance *Nahót dónnaran* is not only performed in cases of sickness, but also with a view to »hurrying on» the chanar fruit (*niapilák tákkai*). Once I witnessed such a ceremony. The chañar fruit — next to the algaroba the most important of the fruits growing in the Chaco forests — reaches maturity in the month of October and forms the staple food of the Indians during that month. The dance was performed in the following way. The fruit gathered in during the day was spread out on cloths or big hides on the ground outside the houses, where they are generally laid to dry. The dance took place at night. A young man began to dance alone, stamping alternately with his feet on the ground, without using any rattle and chanting at first in a low voice. Gradually his movements

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CHAPTER XVI.

Ceremonial fasting.

M 785 262 Fasting or restrictions in diet play an important part among the religious practices of the Chaco Indians. In most cases ceremonial fasting seems to be due to the belief that in eating man may come in contact with dangerous disease-bringing spirits which are in some way associated with the food. Since harmful spirits are supposed to have a special liking for certain kinds of food, these kinds of food are in some cases taboo to the Indians. The common belief that the spirits of the dead reincarnate themselves in various animals has in the first place given rise to all sorts of food restrictions, for the meat of such animals is generally, although not invariably, regarded as taboo.

M 262 The Indians of the Gran Chaco, dependent upon very restricted sources of subsistence, as a rule utilize everything that can possibly be used as food. Thus several animals are eaten which we do not regard as fit for food, and if a certain animal is despised, this is, as a rule due to superstitious ideas of one kind or another. The *Chorot* for instance C 262 among other things regard such animals as locusts, certain beetles, lizards, and a kind of rat as delicacies; of others the fox is considered edible, as also of birds the owl and a certain kind of vulture (called *carancho* in Spanish, *Polyborus vulgaris*). In regard to the fox, the owl, [588] and the vulture, however, there is the restriction that only *old* people can eat them, not young people and children, whom such food would do harm. In several cases I received from the younger Choroti men the explanation: "The old ones can eat the meat of this or that animal, not we". This means that such animals or birds as those just mentioned are in some way associated with evil spirits; the eating of the meat of these animals therefore would have disastrous consequences for young people and children who have less power of resistance against evil